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Dept. Of the Interior

Feb. 1989

②
JOHN DAY FOSSIL BEDS

NATIONAL MONUMENT / OREGON

ROAD SYSTEM EVALUATION STUDY

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

February 1989

Prepared by the

U.S. DEPARTMENT OF THE INTERIOR
National Park Service

and

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration

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SUMMARY

The John Day Fossil Beds National Monument (JODA) is located in east central Oregon (see Region Map). The Monument identifies, interprets, and preserves the paleontological, geological, natural, and cultural resources of three widely separated areas covering approximately 13,680 acres. A complete round trip tour of all sites beginning and ending at John Day is about 290 miles. These three sites consist of the Sheep Rock Unit, Painted Hills Unit, and Clarno Unit. Park headquarters is located at John Day (see Vicinity Map). The road system is composed of short access roads leading from State or County maintained roads to the JODA sites.

John Day Fossil Beds National Monument was authorized October 26, 1974, and established October 8, 1975, under the authority of Public Law 93-486, 88 Stat. 1461 whose purposes is to identify, interpret, and protect the geological, paleontological, natural, and cultural resources along the central and upper John Day River and to provide facilities that will promote and assist visitor recreational enjoyment and understanding of the same.

Problems include rough surfaces, lack of surfacing material, poor intersections, and poor horizontal/vertical alignment. The major problem however, occurs on the county road which provides the main access within the Painted Hills Unit and is beyond the control of the National Park Service (NPS). Poor subgrade material, lack of surfacing material, and a poor horizontal alignment makes this road extremely hazardous to impassable during periods of wet weather.

The major recommendations for maintaining and improving the road systems within each site are tabulated in Table 1 - Summary of Road Improvement Recommendations. The table includes the proposed functional classification, the recommended roadway widths, the types of proposed improvements, the estimated cost, and the environmental documentation required by each project.

II

Road construction priorities are included with the projects ranked in priority order for programing and budget purposes. Maps which show the location of each route are contained in the Route Reconnaissance Reports beginning on page 57.

NPS park staff should coordinate very closely with the State and County Highway Departments since several projects, as identified on tables 1 and 6, will require construction or improvements by these agencies prior to or during construction by NPS.

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FIGURE 1

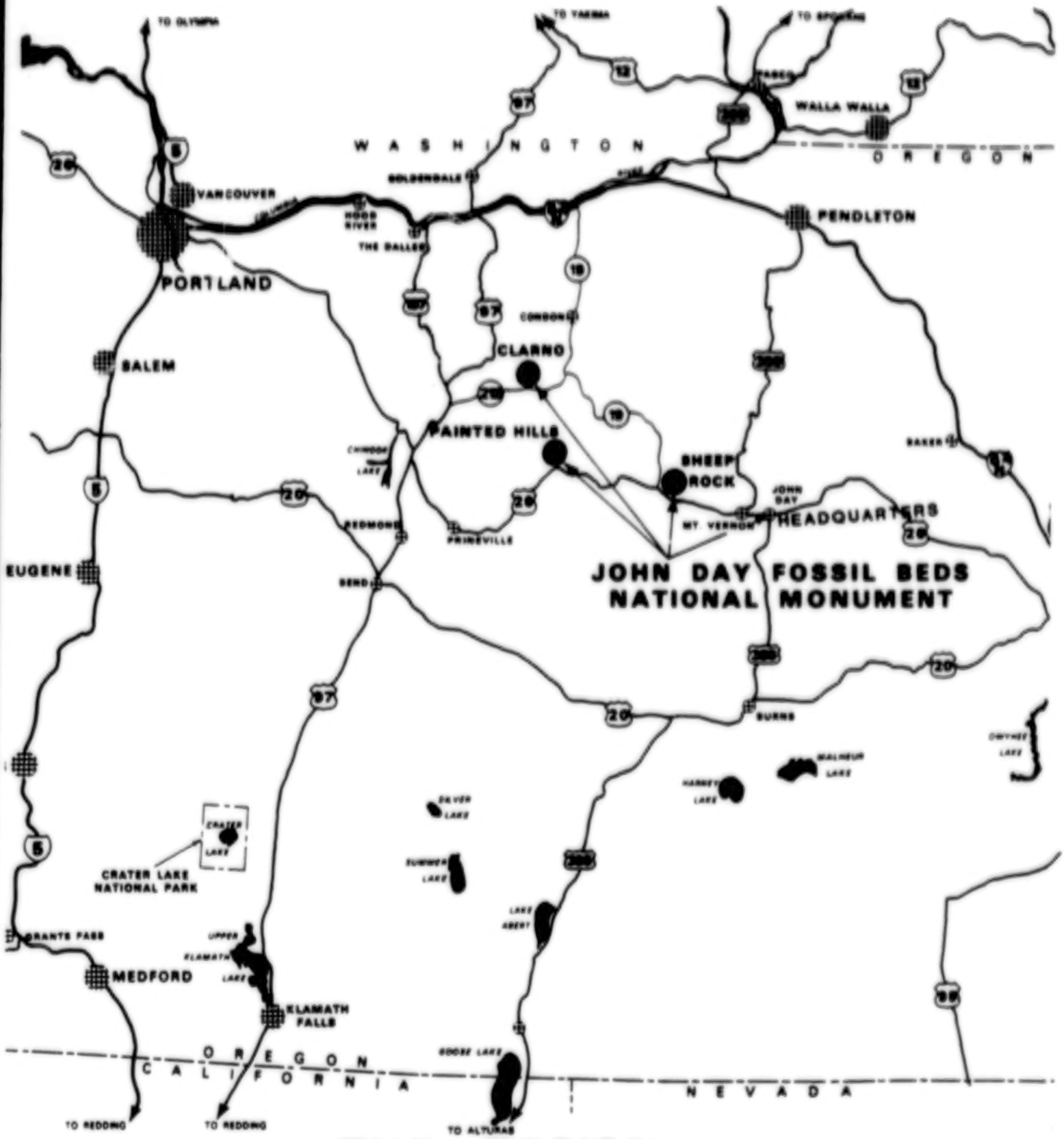

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FIGURE 2

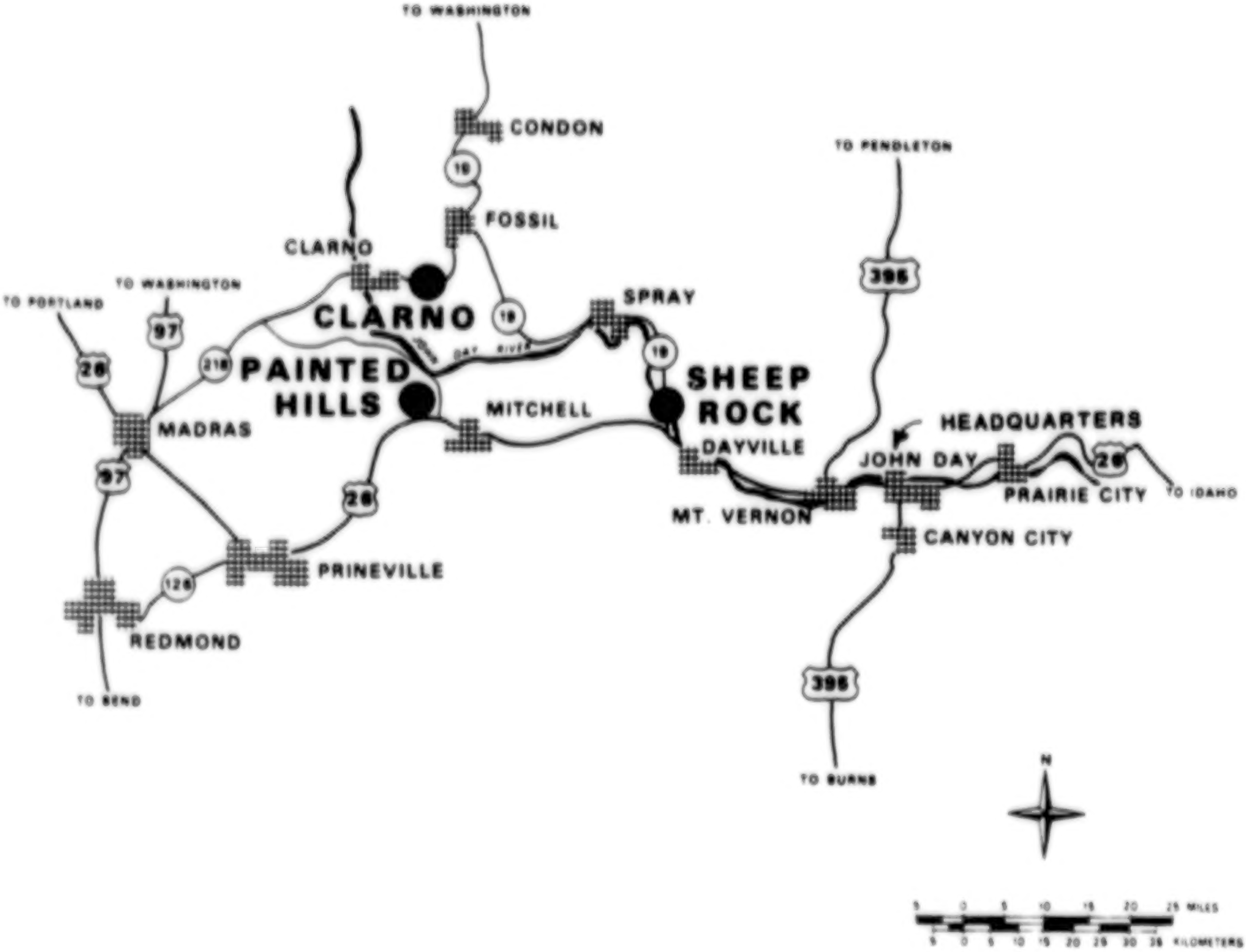

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TABLE 1. SUMMARY OF ROAD IMPROVEMENT RECOMMENDATIONS

ROUTE NO.	ROUTE NAME	LOCATION	LENGTH (Mi)	FUNCT CLASS	ROADWAY WIDTH (FT.)	SURFACE	ESTIMATED COST ($)	IMPROVEMENT TYPE	COMPLIANCE REQUIRED	COMMENTS
PRIORITY I										
101	Sheep Rock Overlook Rd. & Parking	At SR 19 MP 122.2	0.04	III	22	Asphaltic Concrete	78,000	Rehabilitation	CE*	16,200 sq. ft. parking area
102	Blue Basin Rd. & Parking	At SR 19 MP 118.7	0.04	III	22	Asphaltic Concrete	63,000	Rehabilitation	CE	12,000 sq. ft. parking area
103	Foree Rd. & Parking	At SR 19 MP 114.2	0.60	III	20	Asphaltic Concrete	284,000	Rehabilitation	CE	15,000 sq. ft. parking area
104	Painted Hills Picnic Loop Rd. & Extension	At Co. 522 MP 0.4	0.40	II	22	Asphaltic Concrete	275,000	Rehabilitation & new construction	EA**	Includes construction of the new road to County Road 16

TABLE 1. SUMMARY OF ROAD IMPROVEMENT RECOMMENDATIONS (CONTINUED)

ROUTE			LENGTH	FUNCT	ROADWAY WIDTH		ESTIMATED	IMPROVEMENT	COMPLIANCE	
NO.	NAME	LOCATION	(Mi)	CLASS	(FT.)	SURFACE	COST ($)	TYPE	REQUIRED	COMMENTS
PRIORITY I (CONTINUED)										
900	Cant Ranch Visitor Center Parking	At SR 19 MP 121.8	0.05	III	22	Asphaltic Concrete	186,000	Rehabilitation	CE	Improve egress from State Highway 19. 36,500 sq. ft. parking area
902	Roadside Pulloffs Picture Gorge	Along US 26	N/A	III	N/A	Asphaltic Concrete	14,400	Rehabilitation	CE	Must be coordinated with Oregon Dept. of Transportation. 3,600 sq. ft. parking area
903	Wayside Exhibit	At SR 19 MP 124.6	N/A	III	N/A	Asphaltic Concrete	40,000	New construction	EA	Proposed development. 10,000 sq. ft. parking area
906	Western Entrance Parking	US 26, 5 mi. so. of vis. center	N/A	III	N/A	Asphaltic Concrete	19,000	Rehabilitation	CE	Enlarge existing parking area to 3,200 sq. ft.
907	Eastern Entrance Parking	US 26, at entrance to Picture Gorge	N/A	III	N/A	Asphaltic Concrete	39,000	Rehabilitation	CE	Enlarge existing parking area to 3,200 sq. ft.

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TABLE 1. SUMMARY OF ROAD IMPROVEMENT RECOMMENDATIONS (CONTINUED)

ROUTE NO.	ROUTE NAME	LOCATION	LENGTH (Mi)	FUNCT CLASS	ROADWAY WIDTH (FT.)	SURFACE	ESTIMATED COST ($)	IMPROVEMENT TYPE	COMPLIANCE REQUIRED	COMMENTS
Priority II										
105	Painted Hills Overlook Rd. & Parking	At Co. 522 MP 1.2	0.10	III	22	Asphaltic Concrete	72,000	Rehabilitation	CE	This road should remain gravel until county rd. is paved. 6,300 sq. ft. parking
10	Wheeler Co. Rd. 522 (Segment 1)	MP 0.0 to MP 0.4	0.40	I	22	Asphaltic Concrete	116,000	Resurfacing	CE	Note: County Road 522 provides access to the Painted Hills Unit but is on the co. system and cannot be improved with NPS or FLHP funds until NPS jurisdiction is obtained through right-of-way or cooperative agreement
	(Segment 2)	MP 0.4 to MP 1.6	1.20	I	22	Asphaltic Concrete	724,000	Reconstruction	EA	
	(Segment 3)	MP 1.6 to MP 2.7	1.10	I	20	Gravel	187,000	Rehabilitation	CE	
901	Leaf Fossil Hills Parking	MP 1.6 to MP 2.7	1.10	III	N/A	Gravel	10,000	Rehabilitation		6,300 sq. ft. parking

TABLE 1. SUMMARY OF ROAD IMPROVEMENT RECOMMENDATIONS (CONTINUED)

ROUTE NO.	ROUTE NAME	LOCATION	LENGTH (Mi)	FUNCT CLASS	ROADWAY WIDTH (FT.)	SURFACE	ESTIMATED COST ($)	IMPROVEMENT TYPE	COMPLIANCE REQUIRED	COMMENTS
Priority III										
201	Clarno Picnic Loop Rd.	At SR 218 MP 26.4	0.18	III	22/14	Asphaltic Concrete	34,000	Resurfacing	CE	
PRIORITY IV										
100	Mascall Overlook & Parking	At US 26 MP 126.8	0.25	II	22	Asphaltic Concrete	176,000	Rehabilitation	EA	Defer until int. of US 26 & Co. 40 is corrected. Costs for int. improvement not included. 10,000 sq. ft. parking
203	Cathedral Rock Rd. & Parking	At SR 19 MP 116.0	Unknown	II	22	Asphaltic Concrete	Unknown	Rehabilitation	CE	Cannot accomplish until Oregon DOT relocates SR 19 around slide area
204	Sheep Rock Campground	Near SR 19 MP 121	Unknown	III	22/14 (1 lane)	Asphaltic Concrete	Unknown	New construction	EA	Proposed development

TABLE 1. SUMMARY OF ROAD IMPROVEMENT RECOMMENDATIONS (CONTINUED)

ROUTE			LENGTH	FUNCT	ROADWAY WIDTH		ESTIMATED	IMPROVEMENT	COMPLIANCE	
NO.	NAME	LOCATION	(Mi)	CLASS	(FT.)	SURFACE	COST ($)	TYPE	REQUIRED	COMMENTS
PRIORITY V										
400	Spring Rd.	At SR 19 MP 122.7	0.60	VI	10	Gravel	43,000	Rehabilitation	CE	Not eligible for FHLP funding
401	Foree Res. Rd.	At SR 19 MP 114.0	0.05	V	10	Gravel		No improvement recommended		
402	Painted Hills Res. Rd.	At Co. 522 MP 0.5	0.10	V	10	Gravel		No improvement recommended		Residence may be relocated
403	Camp Hancock	At SR 218 MP 25.6	0.47	III	12	Gravel	40,000	Rehabilitation	CE	Public not restricted, but not encouraged to use the road
10	Wheeler Co. 522 (Segment 4)	MP 2.7 to MP 3.4	0.7	I	12	Gravel	10,000	Rehabilitation		Provide turnaround at park boundary

TABLE 1. SUMMARY OF ROAD IMPROVEMENT RECOMMENDATIONS (CONTINUED)

ROUTE NO.	ROUTE NAME	LOCATION	LENGTH (Mi)	FUNCT CLASS	ROADWAY WIDTH (FT.)	SURFACE	ESTIMATED COST ($)	IMPROVEMENT TYPE	COMPLIANCE REQUIRED	COMMENTS
PRIORITY V (CONTINUED)										
202	Private Ranch Rd.	At Co. 522 to ranch	0.4	II	22	Gravel	65,000	Rehabilitation		It is anticipated that BLM will acquire this land & enter into an agreement with NPS for administration
904	Painted Cove Trailhead	Route 202 at MP 1.6	N/A	III	N/A	Gravel	11,000	Resurfacing		6,300 sq. ft parking
905	Palisades Parking Area	At SR 218 MP 26.2	N/A	III	N/A	Asphaltic Concrete	15,000	Resurfacing	CE	
908	Parking Area #1	SR 19, MP 122.8	300' Access Road	III	10	Gravel		Improvement was completed in FY 88		The site has a short access road and an 800 sq. ft. parking area

TABLE 1. SUMMARY OF ROAD IMPROVEMENT RECOMMENDATIONS (CONTINUED)

ROUTE			LENGTH	FUNCT	ROADWAY WIDTH		ESTIMATED	IMPROVEMENT	COMPLIANCE	
NO.	NAME	LOCATION	(Mi)	CLASS	(FT.)	SURFACE	COST ($)	TYPE	REQUIRED	COMMENTS
PRIORITY V (CONTINUED)										
909	Parking Area #2	SR 19, MP 122.3	550' access road	III	10	Gravel	N/A	Improvement was completed in FY 88		The site has a short access road and an 800 sq. ft. parking area
910	Parking Area #3	SR 19, MP 121.3		III		Gravel		completed in FY 88		The site is adjacent to SR 19 and has a 3,500 sq. ft. parking area

*   Categorical Exclusion

**   Environmental Assessment

INTRODUCTION

The 1982 Surface Transportation Assistance Act, Public Law 97-424, was enacted to address deteriorating road systems throughout the nation. The Federal Lands Highway Program (FLHP) was created by this law to specifically address roads on federally administered lands. The program is administered by the Federal Highway Administration (FHWA) who also provide technical assistance to the federal land managing agencies through interagency agreements. The legislation enables (NPS) to conduct a multi-year program of road improvements with money to be obligated from the Highway Trust Fund. In order to ensure the efficient expenditure of funds, FLHP requires advance planning. This Road System Evaluation (RSE) constitutes the advance planning for the JODA road system conducted by NPS in cooperation with FHWA. This study inventories the existing road system, identifies needs and improvements, recommends priorities, and provides direct input for the formulation of the NPS multi-year program.

PURPOSE OF THE STUDY

In accordance with the advance planning requirements of FLHP, NPS is systematically evaluating the roads in all areas under its jurisdiction. The purpose of this RSE is to inventory all the existing public and administrative roads, evaluate the physical condition and operational characteristics of each road, and make improvement recommendations as warranted and consistent with the approved planning direction and resource sensitivities specific to JODA. The recommendations are prioritized and logical construction projects proposed. Cost estimates and scopes of work are identified so projects can be programmed and funded. In order to ensure that no road function is arbitrarily changed from established use patterns or approved planning direction, each route is functionally classified according to the criteria in the 1984 NPS Park Road Standards.

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STUDY METHODS

This study is the result of several meetings with representatives of JODA, Pacific Northwest Regional Office (NPS), Denver Service Center (NPS), and Western Direct Federal Division (FHWA). These meetings covered general road management strategies, identification of specific problems, and consideration of future development plans.

Subsequent to these meetings, field reviews were conducted of the JODA roads. Route logs were developed to inventory and help evaluate conditions and geometrics of the existing roads. These logs were supplemented with data on road uses, adjacent resources, and character.

Reference materials included the General Management Plan and Environmental Assessment, Statement for Management, Park Resource Maps, and the Interpretive Plan for approved planning direction and resource identification information. Technical information was obtained from the NPS Park Road Standards, AASHTO Policy for Geometric Design of Highways and Streets, and Road Inventory and Needs Study (RIP) produced specifically for JODA.

The RSE was prepared jointly by NPS and FHWA. The Park Service was responsible for all resource and visitor experience input and FHWA for all technical input and cost estimates. Alternatives considered, recommendations and the proposed program were prepared jointly.

EXISTING CONDITIONS

Location/Access/Circulation

JODA is located in three separate distinct units with the park headquarters located at John Day in east central Oregon. The Sheep Rock Unit is situated in Grant County, 5 miles north of Dayville. The Painted Hills Unit is situated in Wheeler County, 10 miles northwest of Mitchell. The Clarno Unit is situated in Wheeler and western Grant Counties, 20 miles southwest of Fossil. Vehicular access to the various sites is via US Highways 26 and 395 and

State Highway 19. These are relatively older winding highways which carry substantial local traffic.

More heavily traveled routes are I-84 about 128 miles to the north and US Highway 20 carrying east-west traffic and US Highway 97 carrying north-south traffic. Access within and between the monument units is by state and county roads. US 26 and SR 19 provide access to and within the Sheep Rock Unit with Grant County Road 40 leading to the proposed Mascall Overlook. The Painted Hills Unit is accessed by Wheeler County Road 16 about 5.6 miles north of US 26 with Wheeler County Road 522 providing access through the unit, and SR 218 access along one edge of the Clarno Unit.

Visitation/Traffic Volumes/Vehicle Type

The average annual visitation for 1985, 1986, and 1987 was 107,390 recreation visits. Peak visitation occurs during May, June, and July. Table 2 illustrates the visitation from 1976-1987 which was provided by the park. Analysis indicates an average daily traffic (ADT) for these three years was 98. Approximately 20 % of the total vehicles entering the monument sites, were buses and recreational vehicles using park roads. There was almost an even split between commercial and school buses.

The projected visitation to the year 2006 is based on the visitation records for the previous 10 years (1977-1987). This information was obtained from the Statistical Branch, Denver Service Center. Analysis of this data indicates that visitation will increase by 39% during the next 19 years (1987-2006). However, an additional 50% was included since the park believes future visitation will not follow the 10 year historic trend because the state is aggressively promoting an increase in tourism. Thus, the ADT for the design year of 2006, will show an increase of approximately 4.7 % annually. Table 3 presents the current and projected ADT for JODA roads.

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TABLE 2. JOHN DAY FOSSIL BEDS NATIONAL MONUMENT VISITATION

	SHEEP ROCK UNIT					PAINTED HILLS UNIT	CLARNO UNIT		HQ. UNIT	TOTAL
YEAR	FOREE	BLUE BASIN	PICTURE GORGE	SHEEP ROCK OVERLOOK	CANT RANCH	PAINTED HILLS	CLARNO	CAMP HANCOCK	HQ. JD	ALL UNITS
1976	7,642	16,346	6,458	8,814		16,765	17,048		1,238	74,311
1977	6,302	15,190	1,478	33.993	3.713	16,793	23.545		4,839	105,853
1978	7,306	12,580	2,396	40,916	18,919	17,611	17.757	2,874	1,690	122,049
1979	4,812	8,373	2,115	26,610	15,639	11,900	13,137	6,688	1,268	90,542
1980	6,111	9,786	3,170	21,769	20,589	15,995	14,887	7,100	1,740	101,147
1981	5,451	12,513	4,070	24,867	20,334	21,210	12,195	9,210	1,560	111,410
1982	4,983	9,666	3,148	25,410	21,476	22,321	12,267	5,349	1,503	106,123
1983	5,769	10,203	3,619	19,589	23,195	26,476	14,397	5,831	1,540	110,619
1984	6,129	10,665	5,235	16,238	21,184	21,646	12,714	6,791	1,152	101,754
1985	6,750	11,861	8,968	13,159	19,705	22,527	10,761	6,916	928	101,575
1986	6,035	11,245	13,850	12,832	19,567	18,078	12,790	7,353	1,550	103,300
1987	6,853	12,769	15,727	14,570	22,219	20,528	14,525	8,349	1,760	117,300
AVE.	6,179	11,766	5,853	21,564	18,776	19,321	14,669	6,647	1,731	103,832

TABLE 3. TRAFFIC VOLUMES

		AVERAGE DAILY TRAFFIC (ADT)	
PARK ROUTE NO.	ROUTE NAME	1987	2006
101	SHEEP ROCK OVERLOOK	13	25
102	BLUE BASIN	12	23
103	FOREE	6	11
104	PAINTED HILLS PICNIC	18	34
201	CLARNO	13	25
403	CAMP HANCOCK	8	15
900	CANT RANCH	20	38
902	PICTURE GORGE	14	26

Accidents/Safety

Most accidents in JODA occur on the adjacent state or local highways. Unless a park ranger is providing assistance or is present, the accident can go unrecorded on the monument's records. The monument has five recorded accidents since it began record keeping in 1976 as follows:

1976 - 1978	0
1979 - US 26 Picture Gorge	3
1980	0
1981 - Cant Ranch Visitor Center Parking Lot	1
1982 - 1984	0
1985 - US 26 Picture Gorge	1

In addition, two accidents were reported on the Painted Hills Road, but the year and other details are not known. However, it does not appear that there are any high accident areas in the park. Information for accidents on the state highway system is summarized on table 4.

TABLE 4 ACCIDENT STATISTICS OF PRIMARY AND SECONDARY HIGHWAYS

LOCATION	ACCIDENTS PER MILLION VEHICLE MILES						
	1987	1986	1985	1984	1982	1981	1980
US 26, Grant Co. line to Jct. SR 19 (Primary)	9.62	0	0	0	3.51	0	6.53
Us 26, Jct. SR 19 to Dayville (Primary)	1.58	1.62	0.60	0.61	2.46	0.59	0.59
SR 19, Kimberly to Jct. US 26 (Primary)	0	0	2.67	1.83	1.76	0.57	2.88
SR 218, Clarno to Fossil (Secondary)	2.11	2.38	4.34	1.33	2.49	3.46	3.46
Statewide Averages							
Rural Primary, Non-freeway	1.21	1.21	1.36	1.21	1.24	2.06	2.12
Rural Secondary, Non-freeway	1.80	1.72	2.03	1.90	1.96	2.08	2.12

Operational Problems

The following areas were identified as being particularly troublesome to the safe and efficient operation of JODA facilities:

Sheep Rock Unit:

The intersection of County Road 40 with US 26 is potentially hazardous because of the limited sight distance along US 26. While this county road does not presently lead to any JODA facilities, the proposed Mascall Overlook would be accessed from this road. Improvement of the intersection or an alternate access should be developed prior to development of the overlook. There is also limited sight distance at the intersection of Foree Road and SR 19.

Painted Hills Unit:

The Painted Hills Road (County Road 522) quickly becomes impassable because of the clay subgrade when it gets wet. It becomes very slippery and almost impossible to control vehicles on this surface. Extensive erosion along the ditches on both sides of the road is creating a major hazard as well as a narrower roadway. The alignment is very poor with several blind corners and relatively steep grades, particularly between MP 0.6 to MP 1.6. This section of the road passes through the colorful John Day formation which is visible from the Painted Hills Overlook and detracts from the visitor view. In addition, the road has been fenced to control off road vehicle use, further detracting from the view. Ideally, this portion of the road should be relocated out of the middle of the scenic view and away from the troublesome soils of the John Day formation.

FIGURE 3

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OPERATIONAL PROBLEM AREAS

LIMITED SIGHT DISTANCE
INTERSECTION OF GRANT CO. RD. 40
AND US-26

LIMITED SIGHT DISTANCE
AT INTERSECTION OF
FOREE RD. AND SR-19

WINDING ALIGNMENT ON COUNTY RD. 522
IN PAINTED HILLS IN CLAY SUBGRADE MATERIAL

DITCH EROISION
ALONG COUNTY ROAD 522
IN PAINTED HILLS

FENCE ALONG COUNTY RD. 522
IN PAINTED HILLS

Maintenance

The monument is not equipped to handle any major road maintenance activities. Its maintenance equipment fleet is quite limited and does not even include a grader. This is primarily due to the relatively minor length of the JODA road network, and the past practice of compensating the state and county for doing necessary maintenance on monument roads while they were in the area maintaining their own roads. Since this work must now be contracted by competitive bid, it is no longer as convenient and cost effective as it used to be and has not been done for the last several years.

With the exception of the Foree Road, Cant Ranch Parking, and the Clarno Picnic Loop, all of the other park roads are dirt or gravel surfaced and are in generally poor condition. Drainage is poor and gravel is thin or non-existent. However, the worst road problem affecting JODA is the Painted Hills Road on the Wheeler County system as described under Operational Problems. Maintenance of this road is sporadic and beyond the control of the NPS. This section of road needs to be reconstructed and improved, but the county does not have funding to accomplish the work in the immediate future, nor can NPS funds be used to improve a county owned road.

Borrow Sites

Since the sites within JODA are small acreage and since they have paleontological significance, no road construction materials will be available from within the park. Commercial sources however, are located in and near the communities of John Day, Mitchell, Fossil, and Dayville.

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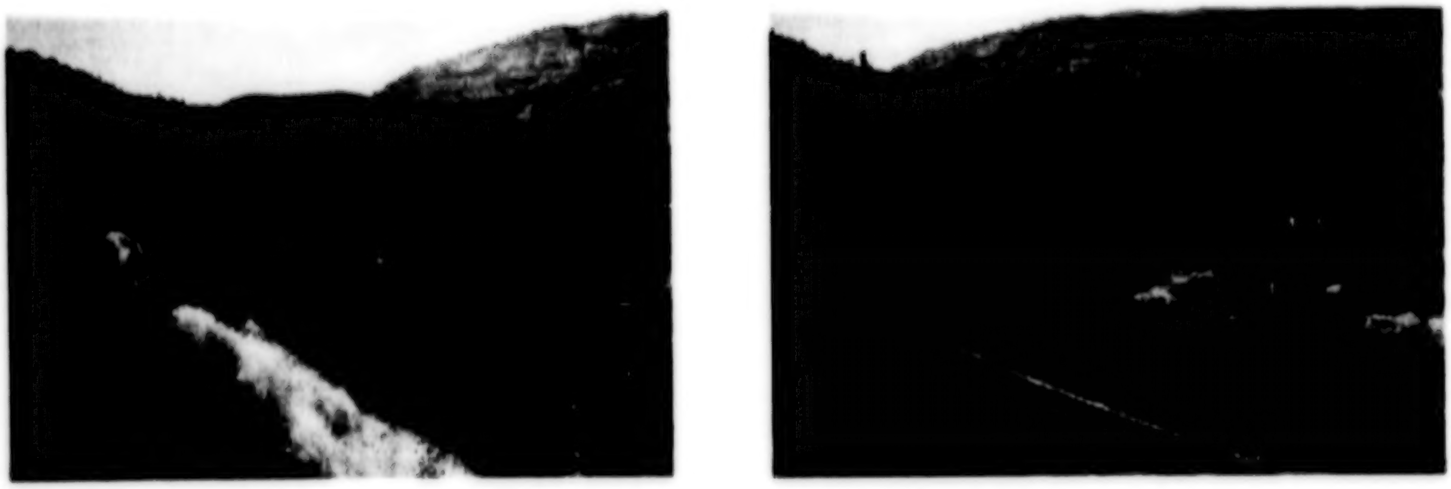
MAINTENANCE PROBLEMS

FIGURE 4



SLIDE AREA ALONG SR-19 NEAR CATHEDRAL ROCK

MAINTENANCE PROBLEM ON FOREE ROAD

Physical Conditions

Table 5 is a summary of the existing road conditions, uses, and resource considerations necessary to functionally classify the roads and make improvement recommendations. Complete route names and numbers have been assigned by NPS for this study and revise in all cases the partial information contained in the FHWA Road Inventory and Needs (RIP) Study (1981).

Turnouts/Parking Areas

There are numerous parking areas and stopping points at JODA. The Cant Ranch visitor center parking area (Route 900) provides a stopping point for visitors as a break from the hot summer weather. It also provides an introduction to the park and its resources with numerous exhibits of the fossils and a history of fossil excavation. The Painted Hills picnic loop road provides parking for picnickers and visitors who are stopping for a rest break.

The Painted Hills overlook, the Blue Basin road, the Sheep Rock overlook, the Foree road, the Leaf Fossil Hills, and the Painted Cove trailhead all provide parking areas for visitors to view the rock formations as well as overall scenic views of the various monument Units.

There are several turnouts adjacent to US 26 which travels through the Picture Gorge area. The gorge is a significant geological phenomenon which provides spectacular viewing for the visitor. In addition, the John Day River also flows through the gorge which provides an additional incentive for visitors to stop. These turnouts are not formalized, but it is proposed to develop several parking areas on the river side of the highway.

The park has constructed three small parking areas adjacent to SR 19 near Cant Ranch which provide access to the John Day River. This construction was completed in FY 88. A wayside exhibit and parking area is proposed adjacent to SR 19 near the Sheep Rock overlook. In summation, it is important to note that parking areas and turnouts are important facilities for the visitors to JODA.

Road Character/Architectural Details

The three units are all quite similar in the road character and architectural details. Several of the more heavily used overlook areas do have post and pole fences to deliniate the parking areas. Others merely have log and/or rock barriers which restrict vehicles to the parking areas. The overall theme or motif for the park road and parking system is to keep it in a natural condition with little formal design.

TABLE 5 - EXISTING CONDITIONS INVENTORY

SHEEP ROCK UNIT

ROUTE INFORMATION				INTENDED USE		CURRENT USE		RESOURCE CONSIDERATIONS		PRESENT ROAD CONDITIONS			
ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	FUNCTION/ PURPOSE	VISITOR EXPERIENCE	1987 (ADT)	TYPE OF VEHICLE	IMPORTANT RESOURCES	TERRAIN	TRAVEL/ SHOULDER WIDTH	DRIVING SURFACE	GENERAL CONDITION	DEFICIENCIES/ HAZARDS
100	Mascall Overlook Road & Parking	Grant County 40/ Overlook	0.25	Access to proposed overlook	Views of Picture Gorge to Sheep Rock. Major geologic formations	0	N/A	Spectacular view	Rolling	10/0	Dirt	Poor	Undeveloped
101	Sheep Rock Overlook Road & Parking	SR 19/ parking	0.04	Access to existing overlook	Views of Sheep Rock & Cant Ranch. 4 fossil bearing formations	13	Cars, RV, Buses	Spectacular view	Rolling	20/0	Gravel	Poor to fair	Drainage, rough surface, unprotected steep dropoff

TABLE 5 - EXISTING CONDITIONS INVENTORY (CONTINUED)

SHEEP ROCK UNIT (Continued)

RESOURCE PRESENT ROAD

NO. NAME (FROM/TO) (MI.) PURPOSE EXPERIENCE (ADT) VEHICLE RESOURCES TERRAIN WIDTH SURFACE CONDITION

ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	FUNCTION/ PURPOSE	VISITOR EXPERIENCE	1987 (ADT)	TYPE OF VEHICLE	IMPORTANT RESOURCES	TERRAIN	TRAVEL/ SHOULDER WIDTH	DRIVING SURFACE	GENERAL CONDITION	DEFICIENCIES/ HAZARDS
102	Blue Basin Road & Parking	SR 19/ parking area	0.04	Access to existing parking area	John Day Formation. Proposed 2 mile trail	12	Cars, RV, Buses	John Day Fossil Bearing Formation	Rolling	18/0	Gravel	Fair	Drainage, rough surface
103	Foree Road & Parking	SR 19/ parking area	0.60	Access to existing parking	John Day formation. Proposed 1/2 mile trail	6	Cars, RV, Buses	John Day Fossil Bearing Formation	Rolling	16-18/0	BST* (Road only)	Poor	Drainage, narrow pavement/sharp curves, rough parking area surface

TABLE 5 - EXISTING CONDITIONS INVENTORY (CONTINUED)

SHEEP ROCK UNIT (CONTINUED)

RESOURCE PRESENT ROAD

NO. NAME (FROM/TO) (MI.) PURPOSE EXPERIENCE (ADT) VEHICLE RESOURCES TERRAIN WIDTH SURFACE CONDITION

ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	FUNCTION/ PURPOSE	VISITOR EXPERIENCE	1987 (ADT)	TYPE OF VEHICLE	IMPORTANT RESOURCES	TERRAIN	TRAVEL/ SHOULDER WIDTH	DRIVING SURFACE	GENERAL CONDITION	DEFICIENCIES /HAZARDS
400	Spring Road	SR 19/ spring	0.60	Access to spring (water supply for Cant Ranch)	N/A	N/A	NPS (4x4) vehicles only	None	Mountainous	10/0	Dirt	Poor	Drainage,slick surface precludes year round access
401	Poree Res. Road	SR 19/ residence	0.05	Access to NPS residence	N/A	2	Cars, Pickup, Trucks	None	Flat	10/0	Gravel	Good	None noted. Residence may be relocated
900	Cant Ranch Visitor Center Parking	SR 19/ parking area	0.05	Access to existing visitor center	Visitor contact & paleontological displays	20	Cars, Buses, RV	On the Register of Historic Properties	Flat	20/1	AC**	Good	Egress from SR 19 need improvement. Inadequate parking

TABLE 5 - EXISTING CONDITIONS INVENTORY (CONTINUED)

SHEEP ROCK UNIT (CONTINUED)

								RESOURCE			PRESENT ROAD		
NO.	NAME	(FROM/TO)	(MI.)	PURPOSE	EXPERIENCE	(ADT)	VEHICLE	RESOURCES	TERRAIN	WIDTH	SURFACE	CONDITION	
ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	FUNCTION/ PURPOSE	VISITOR EXPERIENCE	1987 (ADT)	TYPE OF VEHICLE	IMPORTANT RESOURCES	TERRAIN	TRAVEL/ SHOULDER WIDTH	DRIVING SURFACE	GENERAL CONDITION	DEFICIENCIES /HAZARDS
902	Roadside Pulloffs in Picture Gorge	Along US 26 through Picture Gorge	N/A	Access to river & Columbia Basalt Formation	Columbia Basalt Formation & John Day River	14	Cars, Buses, RV	Indian Pictographs & John Day River	Mountainous	N/A	Gravel	Fair	Rough surface; limited sight distance & inadequate parking
906	Western Entrance Parking	Along US 26 5 mi. so. of vis. cntr.	N/A	Monument entrance sign	Scenic view	14	Cars, Buses, RV	Columbia Basalt Formation	Mountainous	N/A	Dirt	Poor	Poor sight distance limited parking & not well defined

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TABLE 5 - EXISTING CONDITIONS INVENTORY (CONTINUED)

SHEEP ROCK UNIT (CONTINUED)

								RESOURCE			PRESENT ROAD		
NO.	NAME	(FROM/TO)	(MI.)	PURPOSE	EXPERIENCE	(ADT)	VEHICLE	RESOURCES	TERRAIN	WIDTH	SURFACE	CONDITION	
ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	FUNCTION/ PURPOSE	VISITOR EXPERIENCE	1987 (ADT)	TYPE OF VEHICLE	IMPORTANT RESOURCES	TERRAIN	TRAVEL/ SHOULDER WIDTH	DRIVING SURFACE	GENERAL CONDITION	DEFICIENCIES /HAZARDS
907	Eastern Entrance Parking	Along US 26 entrance to Picture Gorge	N/A	Monument entrance sign	Scenic views	14	Cars, Buses, RV	Rock formations; Indian Pictographs; John Day River	Mountainous	N/A	Dirt	Poor	Poor sight distance limited parking & not well defined
908	Parking Area #1	Along SR 19, 1 mi. so. of vis. cntr.	300' access road	River access	Rock formations & river activities.	Unknown	Cars, Buses, RV	Scenic view	Flat	10/0	Gravel	Good	Was recently improved

TABLE 5 - EXISTING CONDITIONS INVENTORY (CONTINUED)

SHEEP ROCK UNIT (CONTINUED)

RESOURCE PRESENT ROAD

NO. NAME (FROM/TO) (MI.) PURPOSE EXPERIENCE (ADT) VEHICLE RESOURCES TERRAIN WIDTH SURFACE CONDITION

ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	FUNCTION/ PURPOSE	VISITOR EXPERIENCE	1987 (ADT)	TYPE OF VEHICLE	IMPORTANT RESOURCES	TERRAIN	TRAVEL/ SHOULDER WIDTH	DRIVING SURFACE	GENERAL CONDITION	DEFICIENCIES /HAZARDS
909	Parking Area #2	Along SR 19, 1/2 mi. so. vis. cntr.	550' access road	River access	Rock formations & river activities	Unknown	Cars, Buses, RV	Scenic views	Flat	10/0	Gravel	Good	Was recently improved
910	Parking Area #2	Along SR 19, 1/2 mi. no. vis. cntr.	N/A	River access	Rock formations & river activities	Unknown	Cars, Buses, RV	Scenic views	Flat	N/A	Gravel	Good	Was recently improved

TABLE 5 - EXISTING CONDITIONS INVENTORY (CONTINUED)

PAINTED HILLS UNIT

RESOURCE PRESENT ROAD

NO. NAME (FROM/TO) (MI.) PURPOSE EXPERIENCE (ADT) VEHICLE RESOURCES TERRAIN WIDTH SURFACE CONDITION

ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	FUNCTION/ PURPOSE	VISITOR EXPERIENCE	1987 (ADT)	TYPE OF VEHICLE	IMPORTANT RESOURCES	TERRAIN	TRAVEL/ SHOULDER WIDTH	DRIVING SURFACE	GENERAL CONDITION	DEFICIENCIES /HAZARDS
10	Wheeler Co. 522	Co.16/ park bndry.	3.40	Access to recreation areas	Scenic views	5-18	Cars, Buses, RV	Rock formations	Rolling	12-22/0	BST, Dirt, Gravel	Poor To Good	Width, drainage, surfacing
104	Painted Hills Picnic Loop Road	Co. 522/ parking area	0.20	Picnic area access	Orientation to Painted Hills Unit	18	Cars, Buses, RV	Bridge Creek	Flat	24/0	Gravel	Fair	Drainage, surfacing. Erosion from Bridge Creek

TABLE 5 - EXISTING CONDITIONS INVENTORY (CONTINUED)

PAINTED HILLS UNIT (CONTINUED)

RESOURCE PRESENT ROAD

NO. NAME (FROM/TO) (MI.) PURPOSE EXPERIENCE (ADT) VEHICLE RESOURCES TERRAIN WIDTH SURFACE CONDITION

ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	FUNCTION/ PURPOSE	VISITOR EXPERIENCE	1987 (ADT)	TYPE OF VEHICLE	IMPORTANT RESOURCES	TERRAIN	TRAVEL/ SHOULDER WIDTH	DRIVING SURFACE	GENERAL CONDITION	DEFICIENCIES /HAZARDS
105	Painted Hills Overlook Road & Parking	Co. 522/ parking	0.30	Over-look access	Scenic view of Painted Hills.	18	Cars, Buses, RV	Scenic views	Rolling	20/0	Gravel	Fair	Drainage, rough surface
202	Private Ranch Road	Co. 522/ bndry.	0.40	Access to recreation area	Scenic views	12	Cars, Buses, RV	Rock formations	Flat	18/0	Gravel	Good	Co. road at the present time. Resurface when in federal ownership

TABLE 5 - EXISTING CONDITIONS INVENTORY (CONTINUED)

PAINTED HILLS UNIT (CONTINUED)

RESOURCE PRESENT ROAD
NO. NAME (FROM/TO) (MI.) PURPOSE EXPERIENCE (ADT) VEHICLE RESOURCES TERRAIN WIDTH SURFACE CONDITION

ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	FUNCTION/ PURPOSE	VISITOR EXPERIENCE	1987 (ADT)	TYPE OF VEHICLE	IMPORTANT RESOURCES	TERRAIN	TRAVEL/ SHOULDER WIDTH	DRIVING SURFACE	GENERAL CONDITION	DEFICIENCIES /HAZARDS
402	Painted Hills Res. Rd.	Co. 522/ residence	0.10	Access to NPS residence	N/A	N/A	Cars, Pickup, Trucks	None	Flat	10/0	Gravel	Good	Residence may be relocated
901	Leaf Fossil Hills Parking	Co. 522/ parking	N/A	Leaf Fossils	Viewing of Leaf Fossils by 1/4 mile trail	Less than 5	Cars, RV, Buses	Leaf Fossils	Flat	N/A	Gravel	Good	

TABLE 5 - EXISTING CONDITIONS INVENTORY (CONTINUED)

PAINTED HILLS UNIT (CONTINUED)

RESOURCE PRESENT ROAD

NO. NAME (FROM/TO) (MI.) PURPOSE EXPERIENCE (ADT) VEHICLE RESOURCES TERRAIN WIDTH SURFACE CONDITION

ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	FUNCTION/ PURPOSE	VISITOR EXPERIENCE	1987 (ADT)	TYPE OF VEHICLE	IMPORTANT RESOURCES	TERRAIN	TRAVEL/ SHOULDER WIDTH	DRIVING SURFACE	GENERAL CONDITION	DEFICIENCIES /HAZARDS
904	Painted Cove Trail-head	Rte 202/ parking	N/A	Access to trail	Rock formations	12	Cars, Rv, Buses	John Day Formation	Flat	N/A	Dirt	Fair	It is anticipated BLM will acquire this land & enter into an agreement with NPS for administration
CLARNO UNIT													
201	Clarno Picnic Loop Rd.	SR 218/ parking	0.18	Picnic area access	Orientation to Clarno Unit	13	Cars, RV	Scenic view of Palisades	Flat	20/0	BST	Poor	Drainage, BST breaking up

TABLE 5 - EXISTING CONDITIONS INVENTORY (CONTINUED)

CLARNO UNIT (CONTINUED)

RESOURCE PRESENT ROAD

NO. NAME (FROM/TO) (MI.) PURPOSE EXPERIENCE (ADT) VEHICLE RESOURCES TERRAIN WIDTH SURFACE CONDITION

ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	FUNCTION/ PURPOSE	VISITOR EXPERIENCE	1987 (ADT)	TYPE OF VEHICLE	IMPORTANT RESOURCES	TERRAIN	TRAVEL/ SHOULDER WIDTH	DRIVING SURFACE	GENERAL CONDITION	DEFICIENCIES /HAZARDS
403	Camp Hancock Road	SR 218/ camp facilities	0.47	Access to Camp Hancock (OMSI)	N/A	8	Auto, Buses	Fossils	Rolling	12/0	Dirt	Poor	Drainage, rough surface
905	Palisades Parking Area	SR 218/ parking	N/A	Access to trails	Scenic view of Palisades	Unknown	Auto, Rv, Buses	View of Palisades Rock Formation	Rolling	N/A	AC	Fair	Pavement breaking up

* Bituminous Surface Treatment

** Asphaltic Concrete

Visitor Use Experience

John Day Fossil Beds National Monument is primarily a day use park and is open year-round, although it normally has a 5 to 6 month visitation period, May through October, when approximately 80 percent of the visitors arrive.

Present visitor use is confined to viewing and taking pictures of geological formations, viewing collected exhibits, and utilizing the many trails for hiking close to the resource formations. Each unit has picnic areas equipped with tables, water, and a comfort station.

There are no overnight campgrounds or facilities in JODA, and the nearest campground is at least an hour's drive. A 30-35 unit family campground is currently planned by the NPS located near Cant Ranch, but no date for construction has been set. Once built, it would encourage longer visits and increased awareness of the area's resources. A private campground is under development near the Foree Site. In addition, The NPS plans to dispense free folders with maps and general information on JODA to increase public knowledge and promote visitation. These folders will be provided to the public at various locations within and at entrances to the state. Additional highway signing is also planned statewide to help direct visitors to the monument units. Average annual visitation for the last three years to JODA is estimated at 107,400. Statistics on public use of most sites in all units have been recorded and assessed by the JODA staff since the monument opened in 1976. Monthly and yearly visitation totals are sporadic, but have remained fairly constant as shown on table 2.

With the state's interest in promoting tourism, expansion of JODA's interpretive, picnicking, and camping facilites will become necessary since more people will probably visit the park and stay for a longer period of time.

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Natural Resources

JODA is located in east central Oregon with park headquarters at John Day. John Day Fossil Beds National Monument preserves a vast record of the past, from more than 50 million years ago to about 5 million years ago. It is the story of the height of the Cenozoic Era, the most recent geologic era, when mammals and flowering plants rose to their supremacy on land and flourished. The story is told in the many layers of rock that make up the steep canyons and gentle hills. JODA has four principal geological formations, distinct bodies of rock, that contain fossils. From the oldest to the youngest, they are known to scientist as the Clarno Formation, the John Day Formation, the Mascall Formation, and the Rattlesnake Formation. Each represents a span of time, millions of years, in the history of life and the history of the Earth.

The geological periods are represented in different areas of JODA. Clarno fossils present a record of the most distant past of about 40 million years ago. Painted Hills is a record of about 30 million years ago with Sheep Rock as a record of the most recent past of about 25 million years ago.

Cool, relatively damp winters and warm, dry summers with daily temperature variation characterize the climate. Pressure systems that move in from the Pacific Ocean lose almost all of their moisture when passing over the Cascade and Ochoco mountain ranges, which results in low average yearly rainfall within the monument. The monument receives, on the average, 11.8 inches of rain each year. Most of the precipitation comes from a few winter storms or from relatively severe thunderstorms during the summer months. The more severe cloud-bursts during the summer can and often do result in flashflooding of the many streams and valleys of this region, which in turn causes a great amount of soil displacement and siltation of the river and streams.

Temperature readings for the monument area shows seasonal averages of 60° F in the spring and summer and 39° F during the fall and winter seasons. Seasonal extremes show winter temperatures dipping below 0° F and temperatures exceeding 105° F during the summer.

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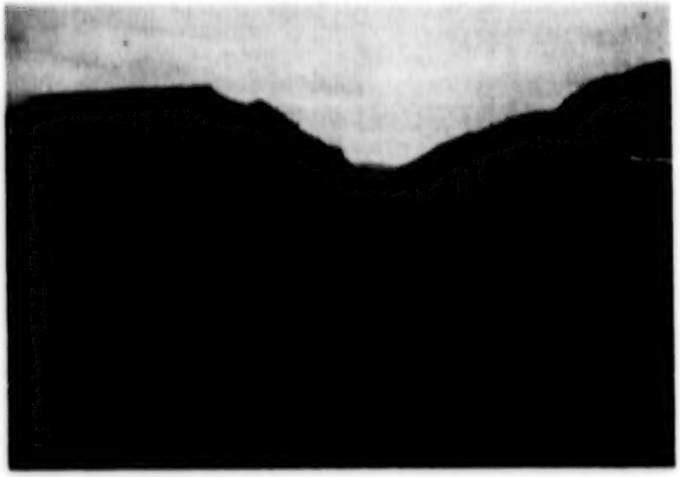
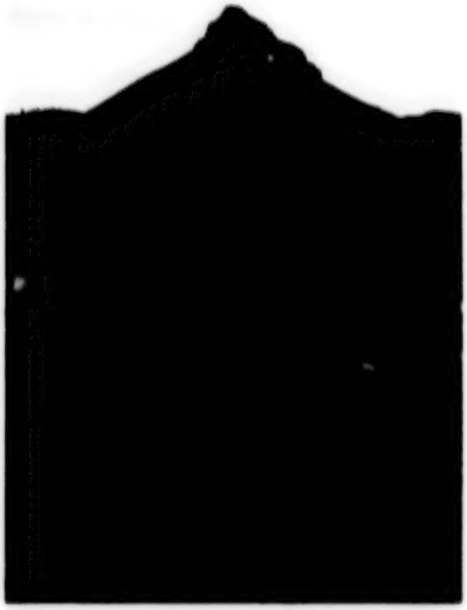
VISTAS



PICTURE GORGE FROM MASCALL OVERLOOK

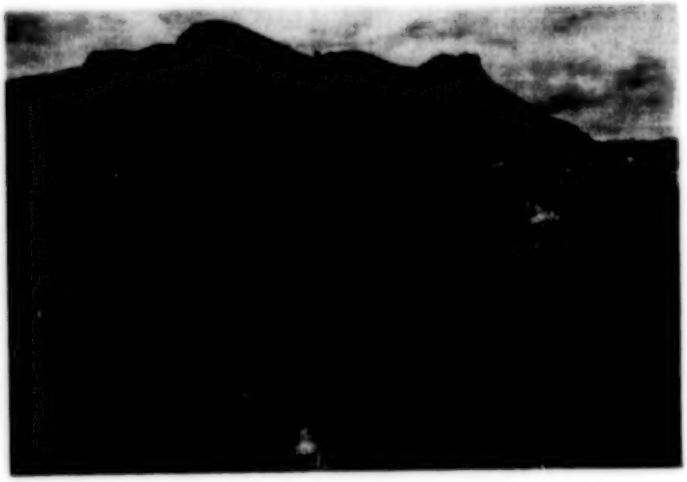


SHEEP ROCK FROM OVERLOOK

PAINTED HILLS FROM OVERLOOK

THE PALISADES AT CLARNO

FIGURE 5



CATHEDRAL ROCK

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The John Day River is essentially a free-flowing stream with the only obstructions present being small diversion dams constructed and maintained by local ranchers for irrigation purposes. A portion of the river from the Clarno Unit downstream to Tumwater Falls has been designated a Scenic Waterway under the State Scenic Waterways Act. The John Day River exhibits flow characteristics typical of rivers in semiarid regions. Extreme differences in both seasonal flows and annual yields occur. Flows are usually highest in April and May and then drop rapidly. Several smaller streams, both live and intermittent, flow in and through the monument. These streams also experience the seasonal fluctuations as discussed for the John Day River.

The soils found within the monument are characteristic of this semiarid region of Oregon. Typically the soils are well drained with a high shrink-swell potential.

The topography of the John Day River Basin is comprised of steep mountains and narrow valleys. The Sheep Rock Unit exhibits the greatest amount of relief in that the elevation gain from the John Day River is between 1,000 and 1,700 feet. Terrain in the Clarno and Painted Hills Units has been weathered extensively, resulting in rounding of most hilltops. The exception here is the Palisades in the Clarno Unit, which is a small area that is steeply sloped.

Native plants species found in the JODA area during the early 1800's undoubtedly included two medium height perennial bunchgrasses: bluebunch wheatgrass, and Basin wildrye. Bluebunch wheatgrass was probably the most prevalent, since remnants of this species still exist. In addition to the bunchgrass species, steppe and shrub-steppe plant communities are found among the dominant native plant communities. One of the four species of sagebrush forms the shrub layer. In the more mesic microhabitates, juniper is sometimes associated with sagebrush. On abandoned farmland or in severly grazed areas, rabbitbrush and cheat grass rapidly invade. A study, conducted from spring 1979 through spring 1983 was undertaken to determine the feasibility of re-establishing pristine plant communities on deteriorated portions of the monument. The conclusions stated that there has been no evidence that natural establishment of climax species is occurring on lower slopes of the monument. If pristine plant communities are to be re-established than artificial seeding must be used.

Four species on the national list of threatened and endangered plants, wild onion, paintbrush, false yarrow and luina are known to occur in Grant and Wheeler counties in habitats similar to those of the monument. Thus, the possibility exists that some of these plants may occur within the monument, but none are known to occur adjacent to the monument roads.

The most prominent wildlife species within the monument is mule deer. There is also the usual large rabbit and rodent population, and associated predators such as coyote. Bird life is abundant and include common game birds of the California quail, chukar, and mourning dove. Limited populations of waterfowl also inhabit the area.

The John Day River and its tributaries are important producers of salmon and steelhead trout. These two species of game fish are found in the streams and lakes of the area.

There are no threatened or endangered animal species listed by the U.S. Fish and Wildlife Service or the State of Oregon that reside in or migrate through JODA that could possibly be impacted by a road improvement project.

Cultural Resources

Sheep Rock Unit:

The 1976 archeological survey conducted by Oregon State University covered the relatively flat and accessible areas in the unit to the east side of State Route 19 and only small portions of US Route 26 south of the intersection with State Route 19. The survey did cover the proposed

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Mascall Overlook Road and parking area (Route 100). No survey was done of the portion of US 26 west of the intersection with State Route 19, which contains intermittant parking areas. It did not cover the Spring Road (Route 400) or portions of the Foree Road and Parking Area (Route 103) and the Foree Residence Road (Route 401). An archeological survey of these sections will be required before final design is complete.

A series of pictograph panels are located along US 26 in Picture Gorge. This area is proposed for intermittant parking. Since buried remains are sometimes associated with these panels, no ground disturbance will be permitted near the sites. Providing for additional visitor use of the area may increase vandalism potential of the pictographs, even if there is no direct impact from construction actvities. Further archeological evaluation may be necessary before construction drawings are complete.

A complex of 14 buildings at Cant Ranch is on the National Register of Historic Properties. Included within this historic district are a stone wall fence and some rose beds near the state highway. Parking expansion is planned at the Cant Ranch. Thus, an archeological survey will be required prior to final design.

Archeological surveys will be conducted to determine the presence of any unrecorded sites. Should any sites be located, the project will be designed to avoid any impact to those sites. If this is not feasible, mitigation procedures will be developed in consultation with the State Historic Preservation Officer.

Painted Hills Unit:

The 1976 archeological survey conducted by Oregon State University covered the relatively flat and accessible areas in the unit. It included both sides of Wheeler County 522 (Rte 10) from about mile post 0.4 west to about mile post 2.4 (Rte 105), (Rte 402), and (Rte 104). No sites

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were found near these roads.

No survey was conducted of the first 0.4 miles of the county road or of that portion of county road 16 that goes through the northeast corner of the unit. Since road widening and possible paving are proposed for this section, an archeological survey will be required before final design is complete. The survey did not include the proposed Leaf Fossil Hills trailhead and parking area. Since drainage correction and possible paving are proposed for this section, an archeological survey will be required before final design is complete.

Clarno Unit:

An archeological survey was conducted in 1976, which covered the relatively flat and accessible areas along both sides of Pine Creek and into both Hancock and Indian canyons. Only one archeological site was found near a roadway. It is a pictograph site located immediately adjacent to the State Route 218 on a berm at the east end of the parking strip opposite the access road to a private residence, approximately 1/4 mile to the west of the Clarno Picnic Loop Road (Route 201). Although no other cultural material was found at the site, there may be buried remains in the undisturbed berm under the pictograph panel. No additional ground disturbance will be permitted near this site.

Approved Planning Direction

John Day Fossil Beds National Monument was authorized October.26, 1974,and established October 8, 1975, under the authority of Public Law 93-486, 88 Stat. 1461 whose purposes is to identify, interpret, and protect the geological, paleontological, natural, and cultural resources along / the central and upper John Day River and to provide facilities that will promote and assist visitor recreational enjoyment and understanding of the same.

The national significance of the monument lies in the geological and paleontological resources

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of the John Day Basin. The sedimentary strata, representing four major geological formations of the Columbia River Plateau, span the last 70 million years and five consecutive geologic epochs. These strata contain one of North America's longest continuous records of plant and animal fossils, which traces the evolution of life forms from the subtropical climate of the Eocene Epoch through the subarctic climate of the Ice Age.

The current approved planning direction for JODA is guided by a 1979 General Management Plan, a 1976 Statement for Management, a 1976 Park Resource Maps publication, a 1978 Interpretive Plan, a 1983 Revegetation With Native Species on the John Day Fossil Beds National Monument report, and a 1987 Site Development Plan for Sheep Rock Unit and Cant Ranch Complex. The most important management objective to this RSE is visitor services which will provide a quality visitor experience through facilities that are compatible with the paleontological, geological, and natural scene and consistent with the purposes of the monument. These plans primarily speak to the preservation of geological and paleontological resources specific, to road improvements with landscape management to enhance and/or recreate the natural scene.

EVALUATION RESULTS/RECOMMENDATIONS

Functional Classification

Table 6 lists the current recommendations for improving the road system in JODA. These include the functional classification of each park road based on current/projected type of use, the appropriate design elements (roadway width, and surface type), the type of improvement necessary to reach or approach desired standards, and a determination of environmental compliance documentation required. Complete information describing some, but not all of the routes and alternatives is contained in the Route Reconnaissance Reports beginning on page 57 of this report.

The functional classifications, design elements, and recommended improvements are based on the assumption that the established use patterns and site attendance may change as a result of the state aggressively promoting tourism.

Design Criteria

The 1984 NPS Park Road Standards are the primary guidelines for design standards in JODA. The design criteria in JODA should align with minimum standards because of the low speed, low volume, and day-use restriction of the JODA roads.

Compliance

See tables 1 and 6 for environmental compliance for the various routes. Archeological clearances will be needed for all work (CE or EA) in compliance with section 106 of the National Historical Preservation Act and because of the likelihood of encountering resources. Monitoring of construction activities will be a condition of all clearances. Work adjacent to the John Day River and Bridge Creek will require a fisheries permit from the state and a section 404 permit from the Corps of Engineers.

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TABLE 6 - FUNCTIONAL CLASSIFICATION, DESIGN STANDARDS, AND RECOMMENDED ROAD IMPROVEMENTS

SHEEP ROCK UNIT

ROUTE INFORMATION							RECOMMENDATIONS				
NO.	ROUTE NAME	LOCATION (FROM/TO)	LENGTH (MI.)	RESOURCE CONSIDERATIONS	FUNCT. CLASSIF.	ADT 1987 2006 DESIGN	WIDTH OF TRAVELED WAY/EACH SHLDR (FT)	TRAVELED SURFACE/ SHLDR SURF	TYPE OF ROAD WORK	COMPLIANCE REQUIRED	COMMENTS
100	Mascall Overlook Road & Parking	Grant Co. 40/ overlook	0.25	Scenic views	II	0 60	20/1	Paved/ Paved	Rehabilitation. Widen existing trail; construct new overlook parking area; add base & pave	CE	Intersection design with US 26 to be coordinated with ODOT
101	Sheep Rock Overlook Road & Parking	SR 19/ parking	0.04	Scenic views	III	13 25	20/1	Paved/ Paved	Rehabilitation. Regrade as necessary; add base & pave	CE	Additional parking if visitor center is built near this site

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TABLE 6 - FUNCTIONAL CLASSIFICATION, DESIGN STANDARDS, AND RECOMMENDED ROAD IMPROVEMENTS (CONTINUED)

SHEEP ROCK UNIT (CONTINUED)

ROUTE INFORMATION									RECOMMENDATIONS		
ROUTE		LOCATION (FROM/TO)	LENGTH (MI.)	RESOURCE CONSIDERATIONS	FUNCT. CLASSIF.	ADT 1987 2006 DESIGN	WIDTH OF TRAVELED WAY/EACH SHLDR (FT)	TRAVELED SURFACE/ SHLDR SURF	TYPE OF ROAD WORK	COMPLIANCE REQUIRED	COMMENTS
NO.	NAME										
102	Blue Basin Road & Parking	SR 19/ parking area	0.04	John Day Formation	III	12 23	20/1	Paved/ Paved	Rehabilitation. Regrade as necessary; add base & pave	CE	Future expansion for 20 cars & 3 buses
103	Foree Road & Parking	SR 19/ parking area	0.60	John Day Formation	III	6 11	18/1	Paved/ Paved	Rehabilitation. Realign sharp curves, widen, improve drainage, and pave	CE	ODOT may have to lower the grade south of the entrance
400	Spring Road	SR 19/ spring	0.60	N/A	VI	Less than 1 Less than 1	10/NA (1 lane)	Gravel/ NA	Rehabilitation. Regrade as necessary; improve drainage, & place 6" of gravel surfacing	CE	Acess to water supply

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TABLE 6 - FUNCTIONAL CLASSIFICATION, DESIGN STANDARDS, AND RECOMMENDED ROAD IMPROVEMENTS (CONTINUED)

SHEEP ROCK UNIT (CONTINUED)

ROUTE INFORMATION							RECOMMENDATIONS				
NO.	ROUTE NAME	LOCATION (FROM/TO)	LENGTH (MI.)	RESOURCE CONSIDER-ATIONS	FUNCT. CLASSIF.	ADT 1987 2006 DESIGN	WIDTH OF TRAVELED WAY/EACH SHLDR (FT)	TRAVELED SURFACE/ SHLDR SURF	TYPE OF ROAD WORK	COMPLIANCE REQUIRED	COMMENTS
401	Foree Res. Road	SR 19/ residence	0.05	None	V	2 2	10/NA	Gravel/ NA	None	NA	Residence may be relocated
203	Cathedral Rock Rd. & Parking	SR 19/ MP 116.0	Unknown	Scenic views	II	0 Unknown	20/1	Paved/ Paved	Rehabilitation. Convert existing SR 19 to access road & parking. Widen/ overlay as necessary	EA	Work cannot be done until SR 19 is relocated around slide area
204	Sheep Rock Campground	Near SR 19/ MP 121	Unknown	Unknown	III	0 Unknown	20/1 12/1 (1 lane)	Paved/ Paved	New construction	EA	Proposed 35 unit family & group campground

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TABLE 6 - FUNCTIONAL CLASSIFICATION, DESIGN STANDARDS, AND RECOMMENDED ROAD IMPROVEMENTS (CONTINUED)

SHEEP ROCK UNIT (CONTINUED)

ROUTE INFORMATION							RECOMMENDATIONS				
ROUTE NO.	ROUTE NAME	LOCATION (FROM/TO)	LENGTH (MI.)	RESOURCE CONSIDERATIONS	FUNCT. CLASSIF.	ADT 1987 2006 DESIGN	WIDTH OF TRAVELED WAY/EACH SHLDR (FT)	TRAVELED SURFACE/ SHLDR SURF	TYPE OF ROAD WORK	COMPLIANCE REQUIRED	COMMENTS
900	Cant Ranch Vis. Centr. Parking	SR 19/ parking area	0.05	Register of Historic Properties	III	20 38	20/1	Paved/ Paved	Rehabilitation. Improve Egress from SR 19; increase parking for RV'S & cars	CE	Need a bus dropoff at the visitor center
902	Roadside Pulloffs in Picture Gorge	Along US 26 thru Picture Gorge	N/A	John Day River, Columbia Basalt	III	14 26	N/A	Paved	Rehabilitation. Regrade as necessary add base & pave	CE	Must be coordinated with Oregon Dept. of Transportation

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TABLE 6 - FUNCTIONAL CLASSIFICATION, DESIGN STANDARDS, AND RECOMMENDED ROAD IMPROVEMENTS (CONTINUED)

SHEEP ROCK UNIT (CONTINUED)

				ROUTE INFORMATION					RECOMMENDATIONS		
NO.	ROUTE NAME	LOCATION (FROM/TO)	LENGTH (MI.)	RESOURCE CONSIDERATIONS	FUNCT. CLASSIF.	ADT 1987 2006 DESIGN	WIDTH OF TRAVELED WAY/EACH SHLDR (FT)	TRAVELED SURFACE/ SHLDR SURF	TYPE OF ROAD WORK	COMPLIANCE REQUIRED	COMMENTS
903	Wayside Exhibit & Parking	SR 19/ MP124.6	N/A	Scenic view	III	20 38		Paved	New construction.	CE	Must be coordinated with Oregon Dept. of Transportation
906	Western Entr. Parking	Along US 26, 5 mi. so. of vis. cntr.	N/A	Scenic view	III	14 26	N/A	Paved	Rehabilitation. Enlarge existing parking area	CE	Must be coordinated with Oregon Dept. of Transportation
907	Eastern Entr. Parking	Along US 26, at entrance to Picture Gorge	N/A	John Day River, Columbia Basalt	III	14 26	N/A	Paved	Rehabilitation. Enlarge existing parking area	CE	Must be coordinated with Oregon Dept. of Transportation

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TABLE 6 - FUNCTIONAL CLASSIFICATION, DESIGN STANDARDS, AND RECOMMENDED ROAD IMPROVEMENTS (CONTINUED)

SHEEP ROCK UNIT (CONTINUED)

ROUTE INFORMATION									RECOMMENDATIONS		
ROUTE NO.	NAME	LOCATION (FROM/TO)	LENGTH (MI.)	RESOURCE CONSIDER-ATIONS	FUNCT. CLASSIF.	ADT 1987 2006 DESIGN	WIDTH OF TRAVELED WAY/EACH SHLDR (FT)	TRAVELED SURFACE/ SHLDR SURF	TYPE OF ROAD WORK	COMPLIANCE REQUIRED	COMMENTS
908	Parking Area #1	Along SR 19 1 mi. so. of vis. cntr.	300'	John Day River, Sheep Rock	III	5 7	10/0	Gravel	Construction was completed in FY 88		The site has a short access road & 800 sq. ft. parking area
909	Parking area # 2	Along SR 19, 1/2 mi. so. of vis. cntr.	500'	John Day River	III	0 7	10/0	Gravel	Construction was completed in FY 88		The site has a short access road & 800 sq. ft. parking area
910	Parking area #3	Along SR 19 1/2 mi. no. vis. cntr.	N/A	John Day River	III	5 7	N/A	Gravel	Construction was completed in FY 88		The site is next to SR 19 & has a 3,500 sq. ft. parking area

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TABLE 6 - FUNCTIONAL CLASSIFICATION, DESIGN STANDARDS, AND RECOMMENDED ROAD IMPROVEMENTS (CONTINUED)

PAINTED HILLS UNIT

ROUTE INFORMATION									RECOMMENDATIONS		
NO.	ROUTE NAME	LOCATION (FROM/TO)	LENGTH (MI.)	RESOURCE CONSIDERATIONS	FUNCT. CLASSIF.	ADT 1987 2006 DESIGN	WIDTH OF TRAVELED WAY/EACH SHLDR (FT)	TRAVELED SURFACE/ SHLDR SURF	TYPE OF ROAD WORK	COMPLIANCE REQUIRED	COMMENTS
10	Wheeler Co. 522	Co. 16/ Park Bndry	3.4	Painted Hills Unit	I	18 34	20/1	Paved/ Paved	Rehabilitation, Resurfacing, Reconstruction	EA	Co. 522 is not eligible for FHLP funds
104	Painted Hills Picnic Loop Rd.	Co. 522/ parking	0.40	Bridge Creek	II	18 34	20/1	Paved/ Paved	Resurface existing road & construct 0.2 mi. rd. to Co. 16	EA	Right-of-ways have been purchased
105	Painted Hills Overlook Road & Parking	Co. 522/ parking	0.10	Scenic view	III	18 34	20/1	Gravel/ NA	Rehabilitation. Regrade as necessary improve drainage, & add 6" gravel surfacing	CE	Consider paving if Co. 522 is paved

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TABLE 6 - FUNCTIONAL CLASSIFICATION, DESIGN STANDARDS, AND RECOMMENDED ROAD IMPROVEMENTS (CONTINUED)

PAINTED HILLS UNIT (CONTINUED)

ROUTE INFORMATION									RECOMMENDATIONS		
NO.	ROUTE NAME	LOCATION (FROM/TO)	LENGTH (MI.)	RESOURCE CONSIDERATIONS	FUNCT. CLASSIF.	ADT 1987 2006 DESIGN	WIDTH OF TRAVELED WAY/EACH SHLDR (FT)	TRAVELED SURFACE/ SHLDR SURF	TYPE OF ROAD WORK	COMPLIANCE REQUIRED	COMMENTS
202	Private Ranch Rd.	Co. 522/ ranch	0.40	Scenic Views	II	12 15	20/1	Gravel/ N/A	Rehabilitation	EA	BLM land exchange is likely
402	Painted Hills Res. Rd.	Co. 522/ residence	0.10	None	V	Less than 1 Less than 1	10/0	Gravel/ NA	None	N/A	Residence may be relocated
901	Leaf Fossil Hills Parking	Co. 522/ parking	N/A	Leaf Fossils	III	Less than 5 15	N/A	Gravel	Rehabilitation. Widen existing parking & add gravel surfacing	CE	Parallel parking only
904	Painted Cove Trailhead	Rte 202/ parking	N/A	John Day Formation	III	12 15	N/A	Gravel	Rehabilitation	CE	6,300 sq. ft. parking is needed

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TABLE 6 - FUNCTIONAL CLASSIFICATION, DESIGN STANDARDS, AND RECOMMENDED ROAD IMPROVEMENTS (CONTINUED)

CLARNO UNIT

ROUTE INFORMATION									RECOMMENDATIONS		
NO.	ROUTE NAME	LOCATION (FROM/TO)	LENGTH (MI.)	RESOURCE CONSIDERATIONS	FUNCT. CLASSIF.	ADT 1987 2006 DESIGN	WIDTH OF TRAVELED WAY/EACH SHLDR (FT)	TRAVELED SURFACE/ SHLDR SURF	TYPE OF ROAD WORK	COMPLIANCE REQUIRED	COMMENTS
201	Clarno Picnic Loop Road	SR 218/ parking	0.18	Scenic views, shade, water	III	13 25	20/1 12/1 (1 lane)	Paved/ Paved	Resurfacing	CE	Loop road is one-way
403	Camp Hancock Road	SR 218/ camp facilities	0.47	Fossils, camp facilities	III	8 15	12/0	Gravel/ NA	Rehabilitation. Grade as necessary, improve drainage, add 6" gravel surfacing.	CE	Public not restricted but not encouraged to use the road
905	Palisades Parking Area	SR 218/ parking	N/A	Scenic views	III	Unknown Unknown	N/A	Paved	Resurfacing	CE	Coordinate with Oregon Dept. of Transportation

ROUTE RECONNAISSANCE REPORTS

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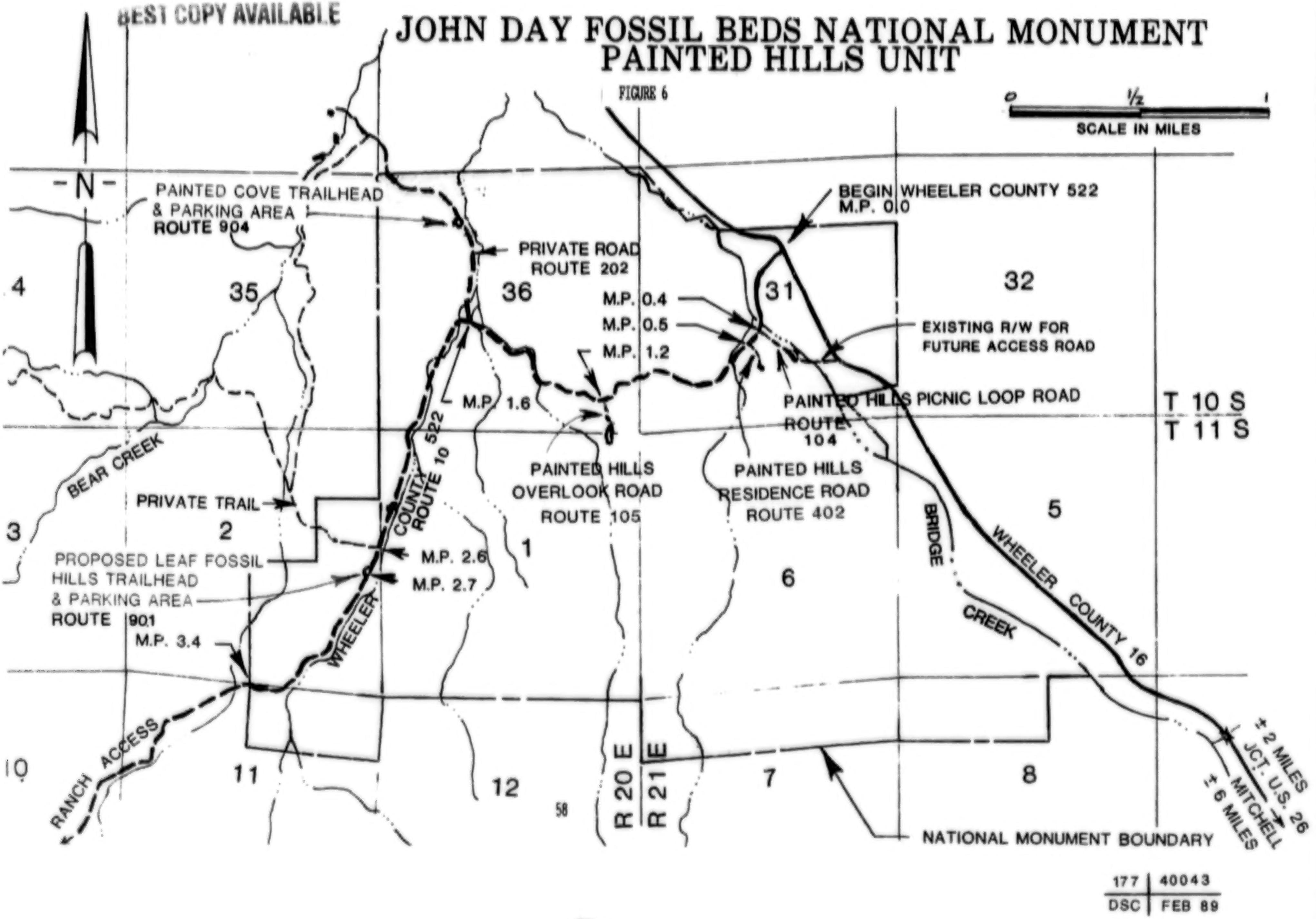
JOHN DAY FOSSIL BEDS NATIONAL MONUMENT PAINTED HILLS UNIT

FIGURE 6



WHEELER COUNTY ROAD 522

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ROUTE 10

FIGURE 7

LOOKING BACK FROM PAINTED HILLS OVERLOOK NEAR CO. RD. M.P. 1.1

LOOKING BACK FROM M.P. 1.9

LOOKING BACK FROM M.P. 2.6

LOOKING BACK FROM M.P. 2.9

LOOKING BACK FROM M.P. 3.2

LEAF FOSSIL HILLS PARKING AREA M.P. 2.9

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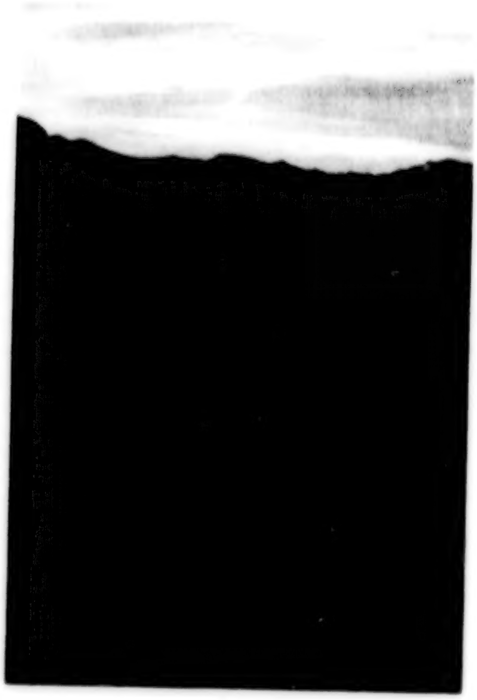
DRAINAGE CHANNEL ALONG COUNTY RD. M.P. 2.0

FIGURE 8



JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: December 1986

ROUTE INFORMATION:

Park Route No.: 10 Name: Wheeler County Road 522

901 Name: Leaf Fossil Hills Parking Area

Route Length:

Segment 1	0.4 miles;	Milepost 0.0	to milepost 0.4
Segment 2	1.2	0.4	1.6
Segment 3	1.1	1.6	2.7
Segment 4	0.7	2.7	3.4
Total 3.4			

Route Location:

This is Wheeler County Road 522 which begins at MP 5.59 of Wheeler County Road 16 and proceeds southwesterly through the Painted Hill Unit to the western boundary at MP 3.4.

Purpose/Function:

This county road provides the main access into the Painted Hills Unit, serving all of the NPS facilities, and also serves two private ranches beyond the unit's boundaries.

Functional Classification:

Class I: Principal Park Road

Topography:

Flat to rolling hills.

Vegetation:

Sagebrush and juniper trees with sparse grasses.

SEGMENT DATA:

Segment No.	Description
1	From Wheeler County Road 16 (MP 0.0) to junction with Painted Hills Picnic Loop

Road at MP 0.4.

2 From Junction with Painted Hills Picnic Loop Road at MP 0.4 to the junction with Route 202 to Painted Cove Trailhead at MP 1.6.

3 From the junction with Route 202 at MP 1.6 to the Leaf Fossil Hills Parking Area at MP 2.7.

4 From the Leaf Fossil Hills Parking Area at MP 2.7 to the Western park boundary at MP 3.4.

EVALUATION OF EXISTING ROADWAY:

Segment 1

Length: 0.04 miles; Average Daily Traffic (1987): 18 vehicles
Projected Average Daily Traffic (2006): 34 vehicles
Roadway Width (shoulder to shoulder): 22 ft.
Pavement/Surfacing Width (ft): 20 Type: BST
Condition: Fair to Good
Base/Subgrade Cond: Good Drainage Cond: Fair
Shoulder Width (ft): 1 Shoulder Cond: Fair
Posted Speed Limit N/A Ave. Oper. Speed: 30 mph
Horizontal Alignment: Good Vertical Alignment: Good

Road Improvement Study (RIP):
1986 Structural CSR: 56.2 Adjusted OSR: 72.0
Roadside Condition: Fair

Segment 2

Length: 1.2 miles; Average Daily Traffic (1987): 18 vehicles
Projected Average Daily Traffic (2006): 34 vehicles
Roadway Width (shoulder to shoulder): 17 - 20 ft.
Pavement/Surfacing Width (ft): 17 - 20; Type: Dirt/gravel
Condition: Poor

Base/Subgrade Cond: Poor   Drainage Cond: Poor
Posted Speed Limit N/A   Ave. Oper. Speed: 20 mph
Horizontal Alignment: Poor   Vertical Alignment: Good

Road Improvement Study (RIP):
1986 Structural CSR: 50.0   Adjusted OSR: 46.4
Roadside Condition: Poor. Deep eroded ditches in places.

Segment 3

Length: 1.1 miles;   Average Daily Traffic (1987): Less than 5 vehicles
Projected Average Daily Traffic (2006): 15 vehicles
Roadway Width (shoulder to shoulder): 12 - 14 ft.
Pavement/Surfacing Width (ft): 12 - 14   Type: Dirt/Gravel
Condition: Fair
Base/Subgrade Cond: Fair   Drainage Cond: Poor
Posted Speed Limit N/A   Ave. Oper. Speed: 20 mph
Horizontal Alignment: Fair   Vertical Alignment: Good

Road Improvement Study (RIP):
1986 Structural CSR: 50.0   Adjusted OSR: 46.4
Roadside Condition: Poor to Fair

Segment 4

Length: 0.7 miles;   Average Daily Traffic (1987): Less than 5 vehicles
Projected Average Daily Traffic (2006): Less than 5 vehicles
Roadway Width (shoulder to shoulder): 12 - 14 ft.
Pavement/Surfacing Width (ft): 12 - 14   Type: Dirt/Gravel
Condition: Fair
Base/Subgrade Cond: Fair   Drainage Cond: Fair
Posted Speed Limit N/A   Ave. Oper. Speed: 15 mph
Horizontal Alignment: Good   Vertical Alignment: Good

Road Improvement Study (RIP):

1986 Structural CSR: 50.0 Adjusted OSR: 63.5

Roadside Condition: Fair.

SPECIAL PROBLEMS OR FEATURES:

Since this is a county road, FLHP funding is not available. A 120 foot easement along the existing road has been reserved by court judgment for livestock and equipment passage. A portion of the road along segment 2 has been fenced to control off-road vehicle use.

Principal Road Needs:

Segment 1 - None noted; however, it should be widened if Segment 2 is improved.

Segment 2 - Alignment, width, and drainage improvements along with all-weather surfacing.

Segment 3 - Width and drainage improvements along with gravel surfacing and a parking area for the Leaf Fossil Hills (Route 901) for 10 cars and 2 buses

Segment 4 - A turnaround should be provided at the end of the road at the park boundary.

PRINCIPAL ENVIRONMENTAL ISSUES AND CONCERNS:

Aesthetics, especially along Segment 2 which is visible from the Painted Hills Overlook.

TYPES OF IMPROVEMENTS:

Rehabilitation, Resurfacing, Reconstruction

SCOPE OF WORK:

Segment 1 - Alt. A - No improvement.

Alt. B - Widen and overly the existing bituminous surface.

Segment 2 - Alt. C - Realign and widen road, provide drainage corrections for eroding roadside ditches, and provide 12 inches of gravel surfacing.

Alt. D - Same as Alt. C with 3 inches of asphaltic concrete surfacing.

Segment 3 - Alt. E - Widen road with drainage improvements and provide 6 inches of gravel surfacing.

Alt. F - Same as Alt. E with 3 inches asphaltic concrete surfacing.

Segment 4 - Provide turnaround at the end of the road.

NEPA COMPLIANCE:

Environmental Assessment	Alt. C & D
Categorical Exclusion	Alt. B, E, & F

ALTERNATIVES:

Road Standards

Alternative:	Alt. B, C, & D	Alt. E & F	NPS Standards
Roadway Width (ft):	22	20	22/20
Lane Width	10	9	10/9 *
Number of Lanes:	2	2	2/2
Shoulder Width (ft/side):	1	1	1/1
Design Speed (MPH):	30-35	30	35/30

*Adjusted for tour bus and recreational vehicle use.

ESTIMATES OF COST:

	Segment 1	Segment 2		Segment 3	
	Recommend		Recommend	Recommend	
	Alt. B*	Alt. C*	Alt. D*	Alt. E*	Alt. F*
Clearing/Grading	$5,000	$106,000	$106,000	$35,000	$35,000
Drainage	2,000	31,000	31,000	11,000	11,000
Surfacing/Paving**	65,000	174,000	318,000	77,000	214,000
Safety & Misc.	6,000		5,000		6,000
Mobilization 10%	8,000	31,000	46,000	13,000	26,000
Construction Subtotal	86,000	342,000	506,000	136,000	292,000
Prelim Engr (FHWA) 10%	9,000	34,000	50,000	14,000	29,000
Constr Eng (FHWA) 15%	13,000	51,000	76,000	20,000	44,000
Contingencies 30%	26,000	103,000	152,000	41,000	87,000
Total Estimated Cost:	134,000	530,000	784,000	211,000	452,000

Note: Cost estimates are rounded to nearest $1,000.

*Not eligible for FLHP funding

**Estimate based upon 3 inch Depth Bituminous Plant Mix Overlay/Pavement and 12 inch Depth Base Course.

Alt. E includes $10,000 for 6,300 sq. ft. Leaf fossil Hills Parking Area and $10,000 for a turnaround at the park boundary.

Alt. F includes $19,000 for 6,300 sq. ft. Leaf Fossil Hills Parking Area

Benefits/Results:

Alt. C & E: Drainage will be controlled and improved, safety will be improved from the alignment, width, and ditch improvements, and the gravel surface will provide for year-round accessibility. Maintenance will be easier.

Alt. B, D, F:

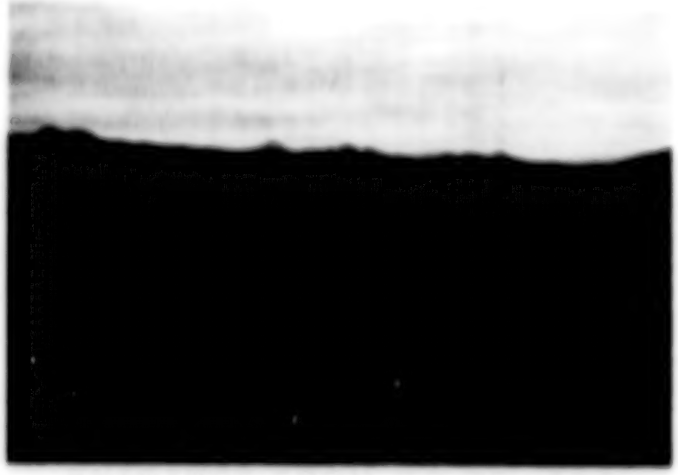
Same as C & E, but maintenance costs will be reduced, and the visitor's experience would be enhanced.

FIGURE 9

PAINTED HILLS PICNIC LOOP ROAD (AND PROPOSED ROAD EXTENSION)

ROUTE 104

LOOKING AHEAD ON CO. RD, 522



ENTRANCE FROM CO.RD. 522

ONE-WAY LOOP AS IT LEAVES PICNIC AREA

PICNIC AREA

CORRIDOR FOR PROPOSED ROAD EXTENSION AS SEEN FROM CO. RD. 16

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PAINTED HILLS PICNIC LOOP ROAD

ROUTE NO. 104

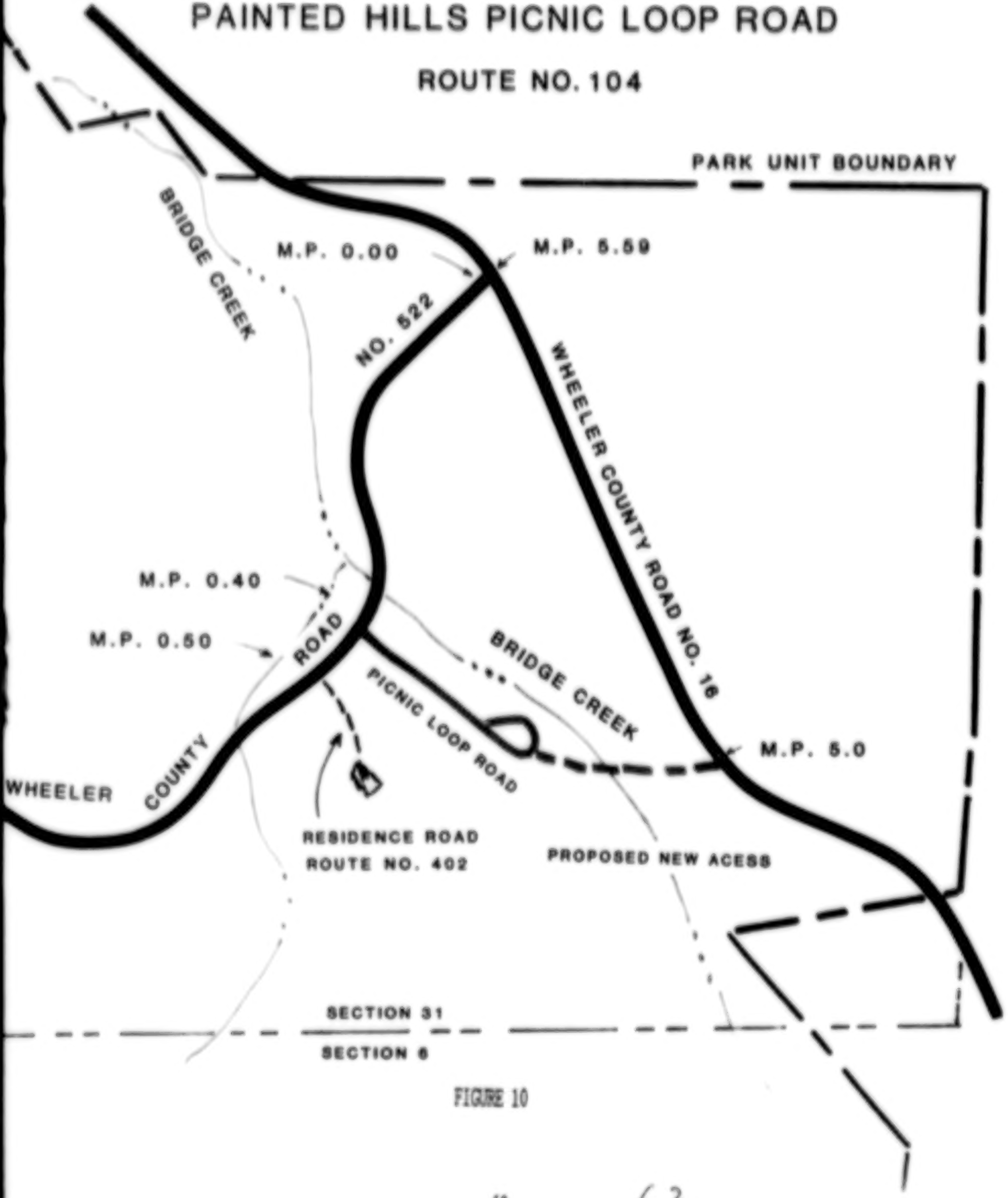

FIGURE 10

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JOHN DAY FOSSIL BEDS NATIONAL HISTORIC SITE

ROUTE RECONNAISSANCE REPORT

Date: December 1986

ROUTE INFORMATION:

Park Route No.: 104 Name: Painted Hills Picnic Loop Road and proposed Road Extension

Total Route Length: 0.20 miles (existing)

0.40 miles (proposed)

Route Location:

The present road intersects Wheeler County Road 522 at MP 0.4 and proceeds southeasterly to the picnic area/orientation site. The proposed extension would continue on southeasterly across Bridge Creek and tie into Wheeler County Road 16 at MP 5.5. Right-of-way for this extension has already been purchased.

Purpose/Function:

Access to picnic area/orientation site for the Painted Hills Unit.

Functional Classification:

Class II: Connector Park Road

Topography:

Flat in the area of the road, surrounded by high rolling hills.

Vegetation:

Sagebrush, grass, and deciduous trees along Bridge Creek

EVALUATION OF EXISTING ROADWAY:

Length: 0.20 miles; Average Daily Traffic (1987): 18 vehicles

Projected Average Daily Traffic (2006): 34 vehicles

Roadway Width (shoulder to shoulder): 24 ft.

Pavement/Surfacing Width (ft): 24 Type: Gravel

Condition: fair

Base/Subgrade Cond: Good   Drainage Cond: Fair

Posted Speed Limit N/A   Ave. Oper. Speed: 15 mph

Horizontal Alignment: Good   Vertical Alignment: Good

Road Improvement Study (RIP):

1986 Structural CSR: 50.0   Adjusted OSR: 68.1

Roadside Condition: Good

SPECIAL PROBLEMS OR FEATURES:

Erosion along Bridge Creek could threaten the road. Better access is needed to encourage visitors to use this area prior to proceeding into the unit.

Principal Road Needs:

Improve the drainage, surfacing, and access into the orientation area.

PRINCIPAL ENVIRONMENTAL ISSUES AND CONCERNS:

Water quality and fisheries associated with Bridge Creek.

TYPES OF IMPROVEMENTS:

Resurfacing, New Construction

SCOPE OF WORK:

Alt. A - Improve the drainage and resurface the existing road with 4 inches of gravel surfacing. Place riprap along Bridge Creek when necessary.

Alt. B - Same as Alt. A, but including construction of the proposed extension across Bridge Creek to County 16. New construction would include a 10 foot diameter pipe at Bridge Creek with concrete headwalls and 6 inches of gravel surfacing. Fisheries permit needed from the state and a Section 404 permit from the Corps of Engineers required if work is done in Bridge Creek.

Alt. C - Same as Alt. A with the addition of asphaltic concrete pavement.

Alt. D - Same as Alt. B with the addition of an asphaltic concrete pavement.

NEPA COMPLIANCE:

Alt. B & D: Environmental Assessment

Alt. A & C: Categorical Exclusion

ALTERNATIVES:

Road Standards

	Existing Road Alts. A & C	Proposed Extension Alts. B & D	NPS Standards
Roadway Width (ft):	22	22	22
Lane Width	10	10	10*
Number of Lanes:	2	2	2
Shoulder Width (ft/side):	1	1	1
Design Speed (MPH):	30	30	30

*Adjusted for tour buses and recreational vehicles

ESTIMATE OF COST:

		Alt. A	Alt. B	Alt. C	Recommended Alt. D
Clearing/Grading		$8,000	$24,000	$8,000	$24,000
Drainage		7,000	10,000	7,000	10,000
Structures			26,000		26,000
Surfacing/Paving*		14,000	29,000	52,000	92,000
Safety & Misc.			8,000	1,000	10,000
Mobilization	10%	3,000	10,000	7,000	16,000
Construction Subtotal		32,000	107,000	75,000	178,000
Prelim Engr (FHWA)	10%	3,000	11,000	8,000	18,000
Constr Eng (FHWA)	15%	5,000	16,000	11,000	26,000
Contingencies	30%	10,000	32,000	22,000	53,000
Total Estimated Cost:		50,000	166,000	116,000	275,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 3 inch depth Bituminous Plant Mix Pavement and 6 inch Depth Base Course.

Benefits/Results:

The proposed new access will draw visitors into the orientation area prior to viewing the painted hills, and will increase visitation at the other features of the unit. Improvement of the surfacing will reduce maintenance costs and improve visitor access and enjoyment of the area.

AND PARKING AREA

ROUTE 105

FIGURE 11

ENTRANCE FROM CO. RD. 522

ONE-WAY LOOP AT OVERLOOK AREA

JOHN DAY FOSSIL BEDS NATIONAL Monument

ROUTE RECONNAISSANCE REPORT

Date: December 1986

ROUTE INFORMATION:

Park Route No.: 105 Name: Painted Hills Overlook Road and Parking

Route Length: 0.10 miles

Route Location:

The road intersects Route 10 at MP 1.2, and then proceeds southerly to the Overlook Parking Area.

Purpose/Function:

Provides access to the Overlook.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Moderately rugged rolling hills.

Vegetation:

Very sparse sagebrush and grasses.

EVALUATION OF EXISTING ROADWAY:

Length: 0.10 miles; Average Daily Traffic (1987): 18 vehicles

Projected Average Daily Traffic (2006): 34 vehicles

Roadway Width (shoulder to shoulder): 20 ft.

Pavement/Surfacing Width (ft): 20 Type: Gravel

Condition: Fair

Base/Subgrade Cond: Fair Drainage Cond: Fair

Posted Speed Limit N/A Ave. Oper. Speed: 10 mph

Horizontal Alignment: Good Vertical Alignment: Good

Road Improvement Study (RIP):

1986 Structural CSR: 50.0 Adjusted OSR: 68.1

Roadside Condition: Good.

Principal Road Needs:

Improve the drainage and surfacing. Reconstruct the parking area.

PRINCIPAL ENVIRONMENTAL ISSUES AND CONCERNS:

Care should be taken not to disturb the colorful painted hills or create a visual intrusion on the landscape.

TYPES OF IMPROVEMENTS:

Rehabilitation

SCOPE OF WORK:

Alternative A

Widen the road, improve the drainage, and resurface with 6 inches of gravel surfacing. Construct a parking area to provide space for 6 cars and 1 bus, also with a gravel surface.

Alternative B

Same as Alternative A, but with the addition of paving with asphaltic concrete.

NEPA COMPLIANCE:

Categorical Exclusion

ALTERNATIVES:

Road Standards

Alternative:	Both	NPS Standards
Roadway Width (ft):	22	22
Lane Width	10	10*
Number of Lanes:	2	2
Shoulder Width (ft/side):	1	1
Design Speed (MPH):	30	30

*Adjusted for tour buses and recreational vehicles

ESTIMATE OF COST:

		Road & Parking Area	
		Alt. A (Gravel)	Alt. B (Asphaltic Concrete)
Clearing/Grading		$6,000	$6,000
Drainage		4,000	4,000
Surfacing/Paving*		11,000	29,000
Safety & Misc.		1,000	3,000
Mobilization	10%	2,000	4,000
Construction Subtotal		24,000	46,000
Prelim Engr (FHWA)	10%	3,000	5,000
Constr Eng (FHWA)	15%	4,000	7,000
Contingencies	30%	8,000	14,000
Total Estimated Cost:		39,000	72,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 3 inch depth Bituminous Plant Mix Pavement and 6 inch Depth Base Course.

Benefits/Results:

Alt. A - Drainage will be properly controlled and maintenance will be easier and less costly.

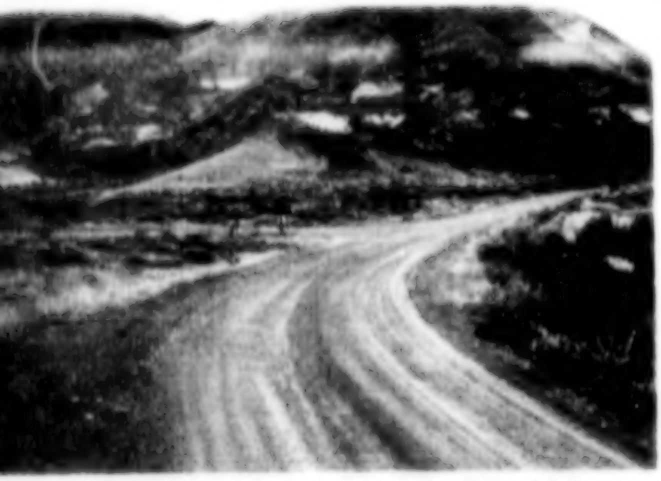
Alt. B - Same as Alt. A except that maintenance would be reduced and the visitor would enjoy a better facility.

Note: Alt. A is recommended until the main entrance road is paved.

PRIVATE RANCH ROAD

ROUTE 202

FIGURE 12



INTERSECTION OF CO. RD. 522
AND THE PRIVATE RANCH ROAD

ENTRANCE TO PRIVATE RANCH ROAD
FROM CO. RD. 522

PAINTED COVE PARKING AREA

PAINTED COVE

LOOKING NORTHERLY
FROM THE PARKING AREA

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JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: December 1986

ROUTE INFORMATION:

Park Route No.: 202 Name: Private Ranch Road
904 Painted Cove Trailhead Parking

Total Route Length: 0.40 miles

Route Location:

This is a private road at the present time. However, it is anticipated that the Bureau of Land Management (BLM) will receive title after a land trade is consummated. At that time, NPS and BLM will enter into an agreement which will allow NPS administration. The road intersects Route 10 at MP 1.6 and then proceeds northerly 0.4 miles to the Painted Cove Trailhead.

Purpose/Function:

This is a private road at the present time which provides access to a ranch beyond the existing Painted Hills Unit boundary. It also provides access to the Painted Cove Trailhead.

Functional Classification:

Class II: Connector Park Road

Topography:

Flat to gently rolling.

Vegetation:

Sagebrush with a scattering of juniper trees and grasses.

EVALUATION OF EXISTING ROADWAY:

Length: 0.40 miles Average Daily Traffic (1987): 12 vehicles

Projected Average Daily Traffic (2006): 15 vehicles

Roadway Width (shoulder to shoulder): 18 ft.

Pavement/Surfacing Width (ft): 18 Type: Dirt

Condition: fair

Base/Subgrade Cond: Fair Drainage Cond: Poor

Posted Speed Limit N/A Ave. Oper. Speed: 15 mph

Horizontal Alignment: Good Vertical Alignment: Good

Road Improvement Study (RIP):

1986 Structural CSR: 50.0 Adjusted OSR: 68.1

Roadside Condition: Good

SPECIAL PROBLEMS OR FEATURES:

This is presently a private road and is the only access to the Trailhead facility. However, it is anticipated that ownership will be transferred to the federal government within the near future.

Principal Road Needs:

Drainage improvements, improved surfacing for all-weather travel, and an enlarged parking area.

TYPES OF IMPROVEMENTS:

Rehabilitation

SCOPE OF WORK:

Improve the surface drainage, minor widening, and placing 6 inches of gravel surfacing. Enlarge parking area to accomodate 10 cars and 2 buses.

NEPA COMPLIANCE:

Categorical Exclusion

ALTERNATIVES:

Road Standards

Alternative:	Proposed	NPS Standards
Roadway Width (ft):	20	20
Lane Width	9	9*

Number of Lanes:	2	2
Shoulder Width (ft/side):	1	1
Design Speed (MPH):	30	30

*Adjusted for tour buses and recreational vehicles

ESTIMATE OF COST:

	Road	Parking Area
Clearing/Grading	$11,000	$2,000
Drainage	4,000	
Surfacing/Paving*	23,000	3,000
Safety & Misc.		1,000
Mobilization 10%	4,000	1,000
Construction Subtotal	42,000	7,000
Prelim Engr (FHWA) 10%	4,000	1,000
Constr Eng (FHWA) 15%	6,000	1,000
Contingencies 30%	13,000	2,000
Total Estimated Cost:	65,000	11,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 6 inch depth Gravel Surfacing.

Benefits/Results:

Land exchange between private owner and BLM with NPS administration is in the best interest of the general public. Improvement of the road would permit all-weather access to the trailhead and reduce maintenance.

FIGURE 13

PAINTED HILLS RESIDENCE ROAD

ROUTE 402

ENTRANCE FROM CO. RD. 522

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT
ROUTE RECONNAISSANCE REPORT
Date: December 1986

ROUTE INFORMATION:

Park Route No.: 402 Name: Painted Hills Residence Road

Total Route Length: 0.10 miles

Route Location:

The road intersects Route 10 at MP 0.5.

Purpose/Function:

Provides access to NPS residence area.

Functional Classification:

Class V: Administrative Access Road

Topography:

Flat.

Vegetation:

Very sparse sagebrush and grasses.

EVALUATION OF EXISTING ROADWAY:

Length: 0.10 miles; Average Daily Traffic (1987): Less than 1 vehicle

Projected Average Daily Traffic (2006): Less than 1 vehicle

Roadway Width (shoulder to shoulder): 10 ft.

Pavement/Surfacing Width (ft): 10 Type: Gravel

Condition: Good

Base/Subgrade Cond: Good Drainage Cond: Fair

Posted Speed Limit N/A Ave. Oper. Speed: 5 mph

Horizontal Alignment: Good Vertical Alignment: Good

Road Improvement Study (RIP):

1986 Structural CSR: 81.2 Adjusted OSR: 91.2

Roadside Condition: Good

Principal Road Needs:

This residence may be relocated. The present road is serving satisfactorily.

TYPES OF IMPROVEMENTS:

None

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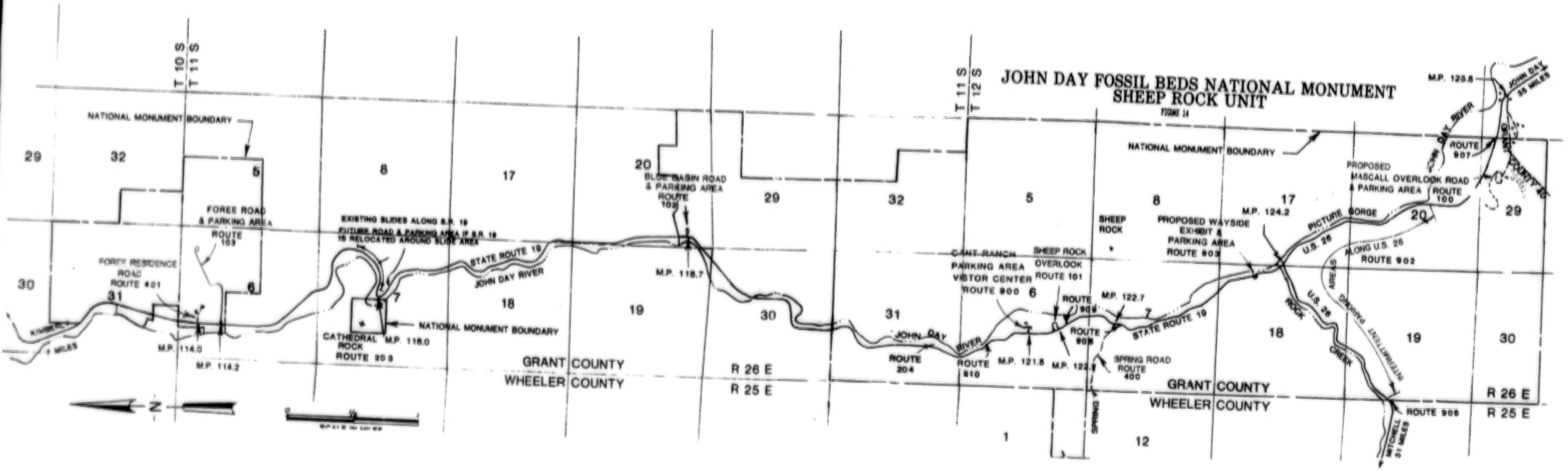


JOHN DAY FOSSIL BEDS NATIONAL MONUMENT
SHEEP ROCK UNIT
FIGURE 14

177 | 40044
DSC | FEB 89

MASCALL OVERLOOK ROAD

AND PARKING AREA

ROUTE 100

FIGURE 15

EXISTING SINGLE LANE TRACK AS IT LEAVES GRANT COUNTY RD. 40

LOOKING BACK TOWARD GRANT COUNTY RD. 40

80

ROAD IMPROVEMENT STUDY
JOHN DAY FOSSIL BEDS NATIONAL MONUMENT
ROUTE RECONNAISSANCE REPORT
Date: December 1986

ROUTE INFORMATION:

Park Route No.: 100 Name: Mascall Overlook Road & Parking Area

Route Length: 0.25 miles

Route Location:

The route begins at Grant County Road 40 about 0.4 miles west of its intersection with US 26 at MP 126.8 and proceeds 0.25 miles northwesterly along a single lane trail to the proposed overlook site. Right-of-way for this corridor has already been obtained, but additional right-of-way is required for the overlook parking area.

Purpose/Function:

Provides access to the proposed Mascall Overlook and Parking Area.

Functional Classification:

Class II: Connector Park Road

Topography:

Rolling hills. The overlook is situated at the edge of an abrupt bluff overlooking flat fields along the John Day River.

Vegetation:

Sagebrush with a scattering of juniper trees in the draws and hayfields on the flat areas along John Day River.

EVALUATION OF EXISTING ROADWAY:

Length: 0.25 miles; Average Daily Traffic (1987): 0 vehicles

Projected Average Daily Traffic (2006): 60 vehicles

Roadway Width (shoulder to shoulder): 10 ft.

Pavement/Surfacing Width (ft): N/A Type: Dirt

Condition: Poor

Base/Subgrade Cond: N/A Drainage Cond: Poor

Posted Speed Limit N/A Ave. Oper. Speed: 10 mph

Horizontal Alignment: Good Vertical Alignment: Good

Road Improvement Study (RIP):

1986 Structural CSR: 0 Adjusted OSR: 40.2

Roadside Condition: Generally good. Sagebrush close to edge of trail.

SPECIAL PROBLEMS OR FEATURES:

The intersection of Grant County Road 40 with US 26 is potentially hazardous due to limited sight distance to the west along US 26.

Principal Road Needs:

Upgrade the existing trail to meet NPS standards and construct a parking area to accommodate 20 cars and 3 buses. However, development of this overlook should not be accomplished until coordination with ODOT and redesign of the intersection of County Road 40 and US 26 is completed.

TYPES OF IMPROVEMENTS:

Rehabilitation

SCOPE OF WORK:

Widen existing trail, provide drainage, construct the parking area, and place base and asphaltic concrete pavement.

NEPA COMPLIANCE:

Environmental Assessment

ALTERNATIVES:

Road Standards

Alternative:	Proposed	NPS Standards
Roadway Width (ft):	22	20

Lane Width	10	9*
Number of Lanes:	2	2
Shoulder Width (ft/side):	1	1
Design Speed (MPH):	30	30

*Adjusted for tour buses and recreational vehicles

ESTIMATE OF COST:

		Road	Parking
Clearing/Grading		$11,000	$4,000
Drainage		5,000	
Surfacing/Paving*		63,000	18,000
Safety & Misc.		1,000	1,000
Mobilization	10%	8,000	2,000
Construction Subtotal		88,000	25,000
Pelim Eng (FHWA)	10%	9,000	3,000
Constr Eng (FHWA)	15%	13,000	4,000
Contingencies	30%	26,000	8,000
Total Estimated Cost:		136,000	40,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 3 inch depth Bituminous Plant Mix Pavement.

Benefits/Results:

The new access to this proposed site will allow park visitors the first opportunity to view four major geological formations as well as scenic views of Picture Gorge. Depending on the direction of travel, this site will be the beginning orientation and interpretation point or the conclusion point for a tour of the monument. Improvement of the existing access would mean the US 26 and Grant County Road 40 intersection would have to be regraded to increase sight distance.

FIGURE 10

SHEEP ROCK OVERLOOK ROAD AND PARKING AREA

ROUTE 101

ENTRANCE FROM SR-19

LOOKING BACK AT SR-19 ENTRANCE

LOOKING AHEAD AT SR-19 EXIT ROAD

ROAD IMPROVEMENT STUDY
JOHN DAY FOSSIL BEDS NATIONAL MONUMENT
ROUTE RECONNAISSANCE REPORT
Date: December 1986

ROUTE INFORMATION:

Park Route No.: 101 Name: Sheep Rock Overlook Road & Parking

Route Length: 0.04 miles

Route Location:

The entrance to the overlook intersects SR 19 at MP 122.2, and the exit from the overlook intersects SR 19 at MP 122.1, forming a loop road.

Purpose/Function:

Provides access to the Sheep Rock Overlook and Parking Area.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Rolling hills. The overlook is situated at the edge of a high bluff overlooking the John Day River.

Vegetation:

Sagebrush with a scattering of juniper trees. Flat areas along the John Day River are used for hay and grazing.

EVALUATION OF EXISTING ROADWAY:

Length: 0.04 miles; Average Daily Traffic (1987): 13 vehicles

Projected Average Daily Traffic (2006): 25 vehicles

Roadway Width (shoulder to shoulder): 20 ft.

Pavement/Surfacing Width (ft): 20 Type: Gravel

Condition: Poor to fair

Base/Subgrade Cond: Fair
Drainage Cond: Fair
Posted Speed Limit: N/A
Ave. Oper. Speed: 10 mph
Horizontal Alignment: Good
Vertical Alignment: Good

Road Improvement Study (RIP):

1986 Structural CSR: 43.8 Adjusted OSR: 74.3

Roadside Condition: Fair. Steep dropoff along a portion of the parking area.

SPECIAL PROBLEMS OR FEATURES:

Intersection designs with SR 19 need to be coordinated with ODOT.

Principal Road Needs:

The road and parking area need a paved surface to reduce maintenance and provide a better facility for the visitor. A steep dropoff along one edge of the parking area needs protection.

TYPES OF IMPROVEMENTS:

Rehabilitation

SCOPE OF WORK:

Regrade the area as necessary to provide space for 30 cars and 3 buses, improve the drainage, add base, and pave with asphaltic concrete. One proposed location of the Thomas Condon Visitor Center is near this site. This may require expansion of this parking area for an additional 50 cars and 5 buses.

NEPA COMPLIANCE:

Categorical Exclusion

ALTERNATIVES:

Road Standards

Alternative:	Proposed	NPS Standards
Roadway Width (ft):	22	22
Lane Width	10	10*

Number of Lanes:	2	2
Shoulder Width (ft/side):	1	1
Design Speed (MPH):	N/A	30

*Adjusted for tour buses and recreational vehicles

ESTIMATE OF COST:

	Entrance Road & Parking
Clearing/Grading	$5,000
Drainage	3,000
Surfacing/Paving*	35,000
Safety & Misc.	2,000
Mobilization 10%	5,000
Construction Subtotal	50,000
Prelim Engr (FHWA) 10%	5,000
Constr Eng (FHWA) 15%	8,000
Contingencies 30%	15,000
Total Estimated Cost:	78,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 3 inch depth Bituminous Plant Mix Pavement.

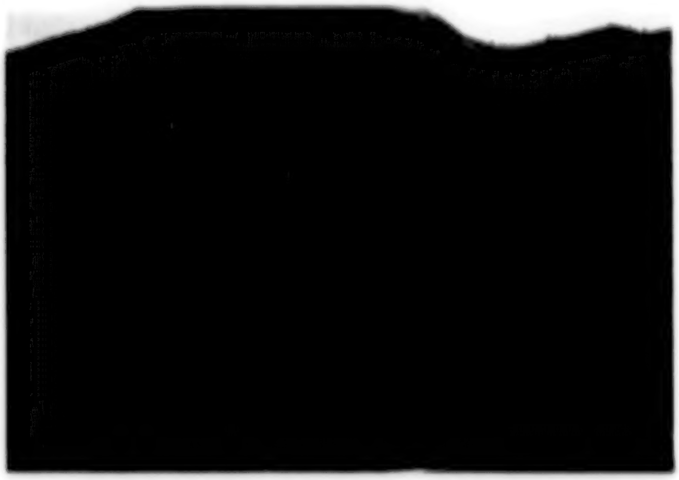
Benefits/Results:

Drainage will be properly controlled, safety hazards will be corrected, maintenance will be reduced substantially, and the visitor will enjoy a newly refurbished facility.

FIGURE 17

BLUE BASIN ROAD AND PARKING AREA

ROUTE 102



ENTRANCE ROAD FROM SR-19

LOOKING BACK AT SR-19 ENTRANCE

BLUE BASIN PARKING AREA

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: December 1986

ROUTE INFORMATION:

Park Route No.: 102 Name: Blue Basin Road & Parking Area

Total Route Length: 0.04 miles

Route Location:

The entrance to the parking area intersects SR 19 at MP 118.7.

Purpose/Function:

Provides access to the Blue Basin Parking Area.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Rolling hills situated at the edge of flat hay and grazing fields adjacent to the John Day River.

Vegetation:

Sagebrush with a scattering of juniper trees.

EVALUATION OF EXISTING ROADWAY:

Length: 0.04 miles: Average Daily Traffic (1987): 12 vehicles

Projected Average Daily Traffic (2006): 23 vehicles

Roadway Width (shoulder to shoulder): 18 ft.

Pavement/Surfacing Width (ft): 18 Type: Gravel

Condition: Fair

Base/Subgrade Cond: Fair Drainage Cond: Fair

Posted Speed Limit N/A Ave. Oper. Speed: 10 mph

Horizontal Alignment: Good Vertical Alignment: Good

Road Improvement Study (RIP):

1986 Structural CSR: 43.8 Adjusted OSR: 69.7

Roadside Condition: Good

SPECIAL PROBLEMS OR FEATURES:

Intersection designs with SR 19 need to be coordinated with ODOT. During heavy rains, the parking area has experienced flooding.

Principal Road Needs:

The entrance road needs to be widened and paved along with the parking area to reduce maintenance. Drainage problems need correcting.

TYPES OF IMPROVEMENTS:

Rehabilitation

SCOPE OF WORK:

Widen the entrance road and regrade the area as necessary to provide space for 20 cars and 3 buses, improve the drainage, add base, and pave with asphaltic concrete.

Note: Future plans call for expanding the parking area for 20 cars and 3 buses.

NEPA COMPLIANCE:

Categorical Exclusion

ALTERNATIVES:

Road Standards

Alternative:	Proposed	NPS Standards
Roadway Width (ft):	22	22
Lane Width	10	10*
Number of Lanes:	2	2
Shoulder Width (ft/side):	1	1
Design Speed (MPH):	N/A	30

*Adjusted for tour buses and recreational vehicles

ESTIMATE OF COST:

	Entrance Road & Parking
Clearing/Grading	$4,000
Drainage	3,000
Surfacing/Paving*	29,000
Safety & Misc.	1,000
Mobilization 10%	4,000
Construction Subtotal	41,000
Prelim Engr (FHWA) 10%	4,000
Constr Eng (FHWA) 15%	6,000
Contingencies 30%	12,000
Total Estimated Cost:	63,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 3 inch depth Bituminous Plant Mix Pavement.

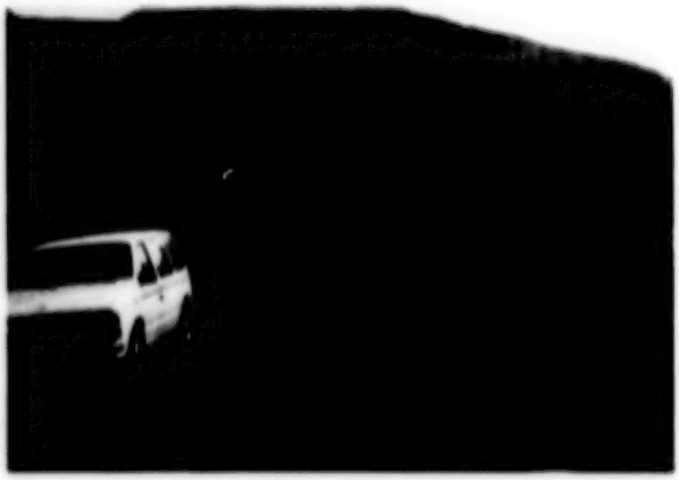
Benefits/Results:

Drainage will be properly controlled, maintenance will be reduced substantially, and the visitor will enjoy a newly refurbished facility.

FIGURE 18

FOREE ROAD AND PARKING AREA

ROUTE 103



ENTRANCE FROM SR-19

LOOKING AHEAD FROM M.P. 0.3

LOOKING AHEAD FROM M.P. 0.4

LOOKING BACK FROM M.P. 0.5

LOOKING AHEAD FROM M.P. 0.5

LOOKING BACK FROM M.P. 0.6

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT
ROUTE RECONNAISSANCE REPORT
Date: December 1986

ROUTE INFORMATION:

Park Route No.: 103 Name: Foree Road & Parking Area

Total Route Length: 0.60 miles

Route Location:

The road intersects SR 19 at MP 114.2, and then proceeds easterly 0.60 miles to the parking area.

Purpose/Function:

Provides access to the Foree Parking Area.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Rolling hills.

Vegetation:

Sagebrush with a scattering of juniper trees.

EVALUATION OF EXISTING ROADWAY:

Length: 0.60 miles; Average Daily Traffic (1987): 6 vehicles

Projected Average Daily Traffic (2006): 11 vehicles

Roadway Width (shoulder to shoulder): 16-18 ft.

Pavement/Surfacing Width (ft): 16-18 Type: BST

Condition: Poor

Base/Subgrade Cond: Fair Drainage Cond: Poor

Posted Speed Limit N/A Ave. Oper. Speed: 20 mph

Horizontal Alignment: Poor Vertical Alignment: Poor

Road Improvement Study (RIP):

1986 Structural CSR: 37.5 Adjusted OSR: 60.3

Roadside Condition: Vegetation is encroaching along the road edges, and there are no drainage ditches.

SPECIAL PROBLEMS OR FEATURES:

An "S" curve across a large gully at MP 0.45 has very restricted sight distance as well as a narrow pavement section over the culvert. The intersection design with SR 19 needs to be coordinated with ODOT. A private campground is under construction just to the south of this site.

Principal Road Needs:

The entrance road needs to be widened and resurfaced and the alignment improved to reduce maintenance costs and provide a safer facility for the visitor.

TYPES OF IMPROVEMENTS:

Rehabilitation

SCOPE OF WORK:

Widen the entrance road throughout and widen the "S" curve on the inside at MP 0.45. Replace and lengthen the two culverts. Realign at lower end of intersection less than 1/4 mile with SR 19 or have ODOT lower grade to south. Will need a culvert over the large drainage. The parking area will need regrading and drainage improvements. Provide asphaltic concrete surfacing for the road and the parking area.

NEPA COMPLIANCE:

Categorical Exclusion

ALTERNATIVES:

Road Standards

Alternative:	Proposed	NPS Standards
Roadway Width (ft):	20	20

Lane Width	9	9*
Number of Lanes:	2	2
Shoulder Width (ft/side):	1	1
Design Speed (MPH):	30	30

*Adjusted for tour buses and recreational vehicles

ESTIMATE OF COST:

	Road	Parking Area
Clearing/Grading	$7,000	
Drainage	14,000	
Surfacing/Paving*	115,000	26,000
Safety & Misc.	2,000	2,000
Mobilization 10%	14,000	3,000
Construction Subtotal	152,000	31,000
Prelim Engr (FHWA) 10%	15,000	3,000
Constr Eng (FHWA) 15%	23,000	5,000
Contingencies 30%	46,000	9,000
Total Estimated Cost:	236,000	48,000

Note: Cost estimates are rounded to nearest $1,000.

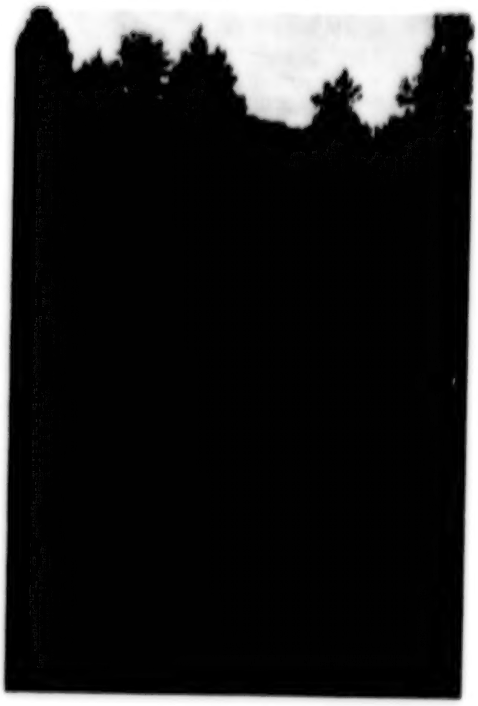
*Estimate based upon 3 inch depth Bituminous Plant Mix Pavement.

Benefits/Results:

Drainage will be controlled, safety hazards will be corrected, maintenance will be reduced, and the visitor will enjoy a newly refurbished facility.

FIGURE 19

SPRING ROAD ROUTE 400



LOOKING AHEAD FROM M.P. 0.1

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: December 1986

ROUTE INFORMATION:

Park Route No.: 400 Name: Spring Road

Total Route Length: 0.60 miles

Route Location:

The road intersects SR 19 at MP 122.7 and then proceeds westerly 0.60 miles to the spring.

Purpose/Function:

Provides administrative access to the Spring, which is the water supply for the Cant Ranch and the proposed Thomas Condon Visitor Center at Sheep Rock. This road is gated.

Functional Classification:

Class VI: Restricted Road

Topography:

Mountainous.

Vegetation:

Sagebrush with a scattering of juniper and deciduous trees in the draws.

EVALUATION OF EXISTING ROADWAY:

Length: 0.60 miles; Average Daily Traffic (1987): Less than 1 vehicle

Projected Average Daily Traffic (2006): Less than 1 vehicle

Roadway Width (shoulder to shoulder): 10 ft.

Pavement/Surfacing Width (ft): 10 Type: Dirt

Condition: Poor - 4 wheel drive required.

Base/Subgrade Cond: Poor Drainage Cond: Poor

Posted Speed Limit: N/A Ave. Oper. Speed: 10 mph

Horizontal Alignment: Poor Vertical Alignment: Poor

Road Improvement Study (RIP):

1986 Structural CSR: 6.2 Adjusted OSR: 37.6

Roadside Condition: Poor

Principal Road Needs:

Control drainage and improve the driving surface for year-round access.

TYPES OF IMPROVEMENTS:

Rehabilitation

SCOPE OF WORK:

Regrade the road to control surface drainage, install culverts, and place 4 inches of gravel surfacing.

NEPA COMPLIANCE:

Categorical Exclusion

ALTERNATIVES:

Road Standards

Alternative:	Proposed	NPS Standards
Roadway Width (ft):	10	None Stated
Lane Width	10	
Number of Lanes:	1	
Design Speed (MPH):	10	

ESTIMATE OF COST:

Clearing/Grading		$6,000
Drainage		3,000
Surfacing/Paving*		15,000
Safety & Misc.		1,000
Mobilization	10%	3,000
Construction Subtotal		28,000

Prelim Engr (FHWA)	10%	3,000
Constr Eng (FHWA)	15%	4,000
Contingencies	30%	8,000
Total Estimated Cost:		43,000**

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 4 inch depth Gravel Surfacing.

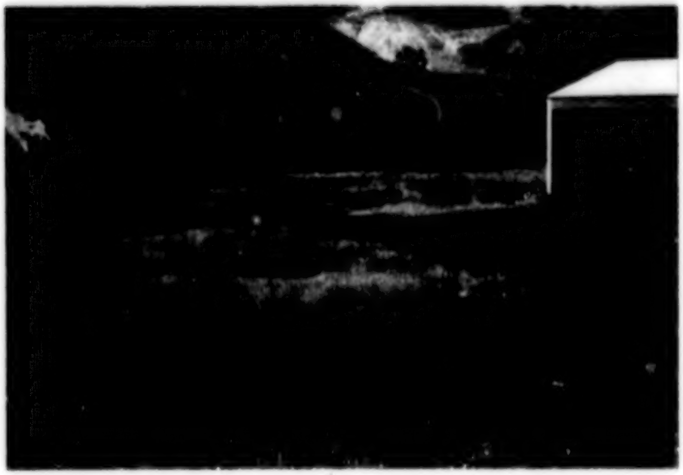
**Not eligible for FHLP funding.

Benefits/Results:

Will enable the NPS to have year-round access to the water source.

ROUTE 401

ENTRANCE FROM SR-19



LOOKING BACK AT SR-19 ENTRANCE

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: December 1986

ROUTE INFORMATION:

Park Route No.: 401 Name: Foree Residence Road

Total Route Length: 0.05 miles

Route Location:

The entrance to the road intersects SR 19 at MP 114.0.

Purpose/Function:

Provides access to NPS residence area.

Functional Classification:

Class V: Administrative Access Road

Topography:

Flat.

Vegetation:

Sagebrush and bunchgrass.

EVALUATION OF EXISTING ROADWAY:

Length: 0.05 miles Average Daily Traffic (1987): 2 vehicles

Projected Average Daily Traffic (2006): 2 vehicles

Roadway Width (shoulder to shoulder): 10 ft.

Pavement/Surfacing Width (ft): 10 Type: Gravel

Condition: Good

Base/Subgrade Cond: Good Drainage Cond: Fair

Posted Speed Limit N/A Ave. Oper. Speed: 5 mph

Horizontal Alignment: Fair Vertical Alignment: Good

Road Improvement Study (RIP):

1986 Structural CSR: 87.5 Adjusted OSR: 89.7

Roadside Condition: Good

Principal Road Needs:

This residence may be relocated. The present road is serving satisfactorily.

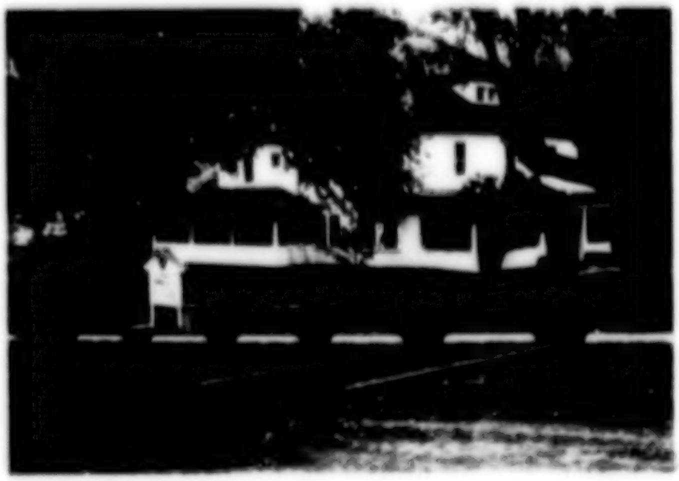
FIGURE 21

CANT RANCH VISTOR CENTER PARKING AREA

ROUTE 900

ENTRANCE FROM SR-19

LOOKING BACK AT ENTRANCE FROM SR-19



PARKING AREA AT CANT RANCH HOUSE

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: December 1986

ROUTE INFORMATION:

Park Route No.: 900 Name: Cant Ranch Visitor Center Parking Area

Total Route Length: 0.05 miles

Route Location:

The entrance to the parking area intersects SR 19 at MP 121.8.

Purpose/Function:

Provides access to the Cant Ranch facilities and Parking Area.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Flat to gently rolling.

Vegetation:

Large deciduous shade trees around the ranch buildings surrounded by hayfields.

Significant Resources:

The Ranch and surrounding buildings are on the National Register of Historic Properties.

EVALUATION OF EXISTING ROADWAY:

Length: 0.05 miles; Average Daily Traffic (1987): 20 vehicles

Projected Average Daily Traffic (2006): 38 vehicles

Roadway Width (shoulder to shoulder): 22 ft.

Pavement/Surfacing Width (ft): 22 Type: AC

Condition: Good

Base/Subgrade Cond: Good Drainage Cond: Good

Shoulder Width (ft): 1 Shoulder Cond: Good

Posted Speed Limit N/A Ave. Oper. Speed: 5 mph

Horizontal Alignment: Good   Vertical Alignment: Good

Road Improvement Study (RIP):

1986 Structural CSR: 100.0   Adjusted OSR: 100.0

Roadside Condition: Good

PRINCIPAL ROAD NEEDS:

The entrance road and parking area are newly paved. Howver, the egress from SR 19 needs improvement. The parking area for RV's and cars needs to be expanded for an additional 30 cars and 15 RV's. Need a bus dropoff at the Visitor Center.

PRINCIPAL ENVIRONMENTAL ISSUES AND CONCERNS:

Large shade trees surrounding authentic working ranch buildings.

TYPES OF IMPROVEMENTS:

Rehabilitation

SCOPE OF WORK:

Improve egress from SR 19 and expand RV and auto parking area.

NEPA COMPLIANCE:

Categorical Exclusion

ALTERNATIVES:

Road Standards

Alternative:	Proposed	NPS Standards
Roadway Width (ft):	22	22
Lane Width	10	10*
Number of Lanes:	2	2
Shoulder Width (ft/side):	1	1
Design Speed (MPH):	N/A	15

*Adjusted for tour buses and recreational vehicles

ESTIMATE OF COST:

		Entrance Road Egress & Parking Areas
Clearing/Grading		$16,000
Drainage		7,000
Surfacing/Paving*		79,000
Safety & Misc.		7,000
Mobilization	10%	11,000
Construction Subtotal		120,000
Prelim Engr (FHWA)	10%	12,000
Constr Eng (FHWA)	15%	18,000
Contingencies	30%	36,000
Total Estimated Cost:		186,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 3 inch depth Bituminous Plant Mix Pavement.

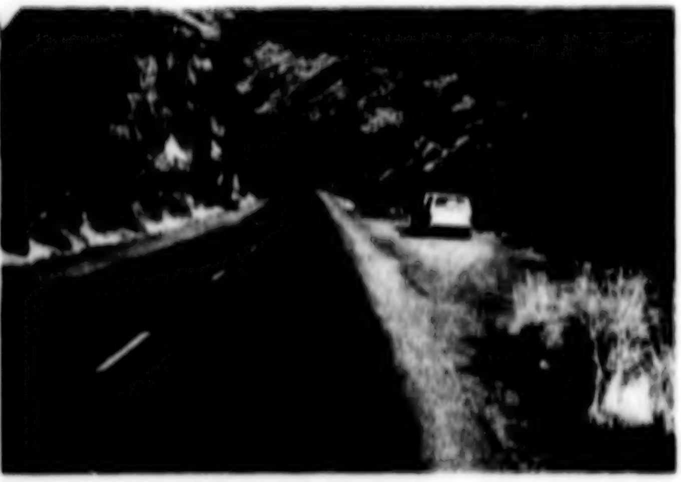
Benefits/Results:

Improvement of egress from SR 19 and the expansion and improvement of the RV and auto parking area to the Cant Ranch facilities will improve safety and congestion problems.

FIGURE 22

ROADSIDE PULLOFFS IN PICTURE GORGE

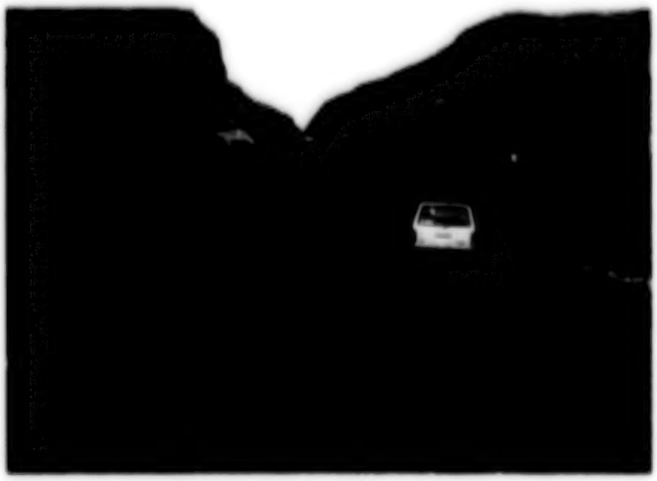
ROUTE 902



M.P. 125.45 ON US-26

M.P. 125.0 ON US-26 LOOKING NORTH

M.P. 125.0 ON US-26 LOOKING SOUTH



M.P. 124.8 ON US-26

ENTERING PICTURE GORGE AREA FROM THE WEST

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: August 1988

ROUTE INFORMATION:

Park Route No.: 902 Name: Picture Gorge Pulloffs

Total Route Length: 2.50 miles Through the Gorge

Route Location:

The pulloff areas are adjacent to US 26 and are located at various points throughout the gorge.

Purpose/Function:

Provides public parking and access to the John Day River.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Steep cliffs and bluffs.

Vegetation:

Shrubs and a few deciduous trees along the river.

Significant Resources:

Indian Pictographs.

EVALUATION OF EXISTING ROADWAY:

Length: 2.50 miles; Average Daily Traffic (1987): 14 vehicles

Projected Average Daily Traffic (2006): 26 vehicles

Pavement/Surfacing Width (ft): N/A Type: Gravel

Condition: Good

Base/Subgrade Cond: Good Drainage Cond: Good

Posted Speed Limit 35 mph Ave. Oper. Speed: 35 mph

Horizontal Alignment: Good Vertical Alignment: Good

PRINCIPAL ROAD NEEDS:

Parking areas need to be enlarged and resurfaced.

PRINCIPAL ENVIRONMENTAL ISSUES AND CONCERNS:

Care should be taken not to disturb the colorful cliffs and the pictographs.

TYPES OF IMPROVEMENTS:

Rehabilitation and resurfacing.

SCOPE OF WORK:

Widen the parking areas and resurface with Asphaltic Concrete.

NEPA COMPLIANCE:

Categorical Exclusion

ESTIMATE OF COST:

		Parking Areas
Clearing/Grading		$2,000
Surfacing/Paving*		10,000
Mobilization	10%	2,000
Construction Subtotal		14,000
Prelim Engr (FHWA)	10%	2,000
Constr Eng (FHWA)	15%	3,000
Contingencies	30%	5,000
Total Estimated Cost:		24,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 3 inch depth Bituminous Plant Mix Pavement.

Benefits/Results:

Improvement of the parking areas along US 26 will provide better access to the John Day River and improve traffic flow through Picture Gorge.

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: August 1988

ROUTE INFORMATION:

Park Route No.: 903 Name: Wayside Exhibit & Parking

Total Route Length: N/A

Route Location:

The parking area is adjacent to SR 19 at MP 124.0.

Purpose/Function:

Provides public parking and access to the John Day River.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Moderately rugged rolling hills.

Vegetation:

Sagebrush and grasses, with a scattering of juniper trees.

EVALUATION OF EXISTING ROADWAY:

Length: N/A miles; Average Daily Traffic (1987): 13 vehicles

Projected Average Daily Traffic (2006): 25 vehicles

Pavement/Surfacing Width (ft): N/A Type: Gravel

Condition: Fair

Base/Subgrade Cond: Fair Drainage Cond: Poor

PRINCIPAL ROAD NEEDS:

Reconstruct the parking area, improve drainage, and pave.

TYPES OF IMPROVEMENTS:

Rehabilitation and resurfacing.

SCOPE OF WORK:

Grade the parking area, improve the drainage, and resurface with Asphaltic Concrete.

NEPA COMPLIANCE:

Categorical Exclusion

ESTIMATE OF COST:

		Parking Area
Clearing/Grading		$5,000
Drainage		4,000
Surfacing/Paving*		13,000
Safety & Misc.		1,000
Mobilization	10%	2,000
Construction Subtotal		25,000
Prelim Engr (FHWA)	10%	3,000
Constr Eng (FHWA)	15%	4,000
Contingencies	30%	8,000
Total Estimated Cost:		40,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 3 inch depth Bituminous Plant Mix Pavement.

Benefits/Results:

Improvement of the parking area along SR 19 will provide better access to the John Day River and orient the visitor to the monument.

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT
ROUTE RECONNAISSANCE REPORT

Date: August 1988

ROUTE INFORMATION:

Park Route No.: 906 Name: Western Entrance

Total Route Length: N/A

Route Location:

Parking area and entrance sign is located on US 26 at the western boundary of the Sheep Rock Unit.

Purpose/Function:

A stopping point before entering the Sheep Rock Unit of the monument.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Rolling hills.

Vegetation:

Sagebrush, grasses, and juniper trees.

EVALUATION OF EXISTING ROADWAY:

Length: N/A miles; Average Daily Traffic (1987): 14 vehicles

Projected Average Daily Traffic (2006): 26 vehicles

Pavement/Surfacing Width (ft): N/A Type: Gravel

Condition: Fair

Base/Subgrade Cond: Fair Drainage Cond: Poor

PRINCIPAL ROAD NEEDS:

Reconstruct the parking area, improve the drainage, and pave.

TYPES OF IMPROVEMENTS:

Rehabilitation and resurfacing.

SCOPE OF WORK:

Widen the parking area and resurface with Asphaltic Concrete.

NEPA COMPLIANCE:

Categorical Exclusion

ESTIMATE OF COST:

		Parking Area
Clearing/Grading		$2,000
Drainage		2,000
Surfacing/Paving*		6,000
Safety & Misc.		1,000
Mobilization	10%	1,000
Construction Subtotal		12,000
Prelim Engr (FHWA)	10%	1,000
Constr Eng (FHWA)	15%	2,000
Contingencies	30%	4,000
Total Estimated Cost:		19,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 3 inch depth Bituminous Plant Mix Pavement.

Benefits/Results:

Improvement of the parking area will provide additional space for the Rv's, cars and campers who stop at the entrance sign.

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: August 1988

ROUTE INFORMATION:

Park Route No.: 907 Name: Eastern Entrance

Total Route Length: N/A

Route Location:

Parking area and entrance sign is located on US 26 at the eastern boundary of the Sheep Rock Unit.

Purpose/Function:

A stopping point before entering the Sheep Rock Unit of the monument and provides access to the John Day River.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Steep cliffs and bluffs.

Vegetation:

Sagebrush, grasses, and juniper trees with deciduous trees along the river. Open farmland to the south.

EVALUATION OF EXISTING ROADWAY:

Length: N/A miles; Average Daily Traffic (1987): 14 vehicles

Projected Average Daily Traffic (2006): 26 vehicles

Pavement/Surfacing Width (ft): N/A Type: Gravel

Condition: Fair

Base/Subgrade Cond: Fair Drainage Cond: Fair

PRINCIPAL ROAD NEEDS:

Reconstruct the parking area, improve the drainage, and pave.

PRINCIPAL ENVIRONMENTAL ISSUES AND CONCERNS:

Care should be taken not to disturb the colorful cliffs and pictographs.

TYPES OF IMPROVEMENTS:

Rehabilitation and resurfacing.

SCOPE OF WORK:

Widen the parking area, improve the drainage, and resurface with Asphaltic Concrete.

NEPA COMPLIANCE:

Categorical Exclusion

ESTIMATE OF COST:

		Parking Area
Clearing/Grading		$6,000
Drainage		4,000
Surfacing/Paving*		11,000
Safety & Misc.		1,000
Mobilization	10%	2,000
Construction Subtotal		24,000
Prelim Engr (FHWA)	10%	3,000
Constr Eng (FHWA)	15%	4,000
Contingencies	30%	8,000
Total Estimated Cost:		39,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 3 inch depth Bituminous Plant Mix Pavement.

Benefits/Results:

Improvement of the parking area will provide additional space for the Rv's, cars and campers who stop at the entrance sign.

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: August 1988

ROUTE INFORMATION:

Park Route No.: 908 Name: Parking area #1

Total Route Length: 330 ft.

Route Location:

Parking area with short access road is located off SR 19 at MP 122.8.

Purpose/Function:

Provide access to the John Day River.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Moderately flat.

Vegetation:

Sagebrush and scattering of juniper trees. Flat areas along the river are used for haying and grazing.

EVALUATION OF EXISTING ROADWAY:

Length: 300 ft.; Average Daily Traffic (1987): 5 vehicles

Projected Average Daily Traffic (2006): 7 vehicles

Roadway width (shoulder to shoulder): 10 ft.

Pavement/Surfacing Width (ft): 10 Type: Gravel

Condition: Good

Base/Subgrade Cond: Good Drainage Cond: Good

Posted Speed Limit: N/A Ave. Oper. Speed: 10 mph

Horizontal Alignment: Good Vertical Alignment: Good

SCOPE OF WORK:

A short access road and an 800 sq. ft. parking area was constructed in FY 88. No further improvement is needed.

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: August 1988

ROUTE INFORMATION:

Park Route No.: 909 Name: Parking area #2

Total Route Length: 330 ft.

Route Location:

Parking area with short access road is located off SR 19 at MP 122.3.

Purpose/Function:

Provide access to the John Day River.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Moderately flat.

Vegetation:

Sagebrush and scattering of juniper trees. Flat areas along the river are used for haying and grazing.

EVALUATION OF EXISTING ROADWAY:

Length: 300 ft.; Average Daily Traffic (1987): 5 vehicles

Projected Average Daily Traffic (2006): 7 vehicles

Roadway width (shoulder to shoulder): 10 ft.

Pavement/Surfacing Width (ft): 10 Type: Gravel

Condition: Good

Base/Subgrade Cond: Good Drainage Cond: Good

Posted Speed Limit: N/A Ave. Oper. Speed: 10 mph

Horizontal Alignment: Good Vertical Alignment: Good

SCOPE OF WORK:

A short access road and an 800 sq. ft. parking area was constructed in FY 88. No further improvement is needed.

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: August 1988

ROUTE INFORMATION:

Park Route No.: 910 Name: Parking area #3

Total Route Length: N/A

Route Location:

Parking area is adjacent to SR 19 at MP 121.3.

Purpose/Function:

Provide access to the John Day River.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Moderately flat.

Vegetation:

Sagebrush and scattering of juniper trees. Flat areas along the river are used for haying and grazing.

EVALUATION OF EXISTING ROADWAY:

Length: N/A Average Daily Traffic (1987): 5 vehicles

Projected Average Daily Traffic (2006): 7 vehicles

Pavement/Surfacing Width (ft): N/A Type: Gravel

Condition: Good

Base/Subgrade Cond: Good Drainage Cond: Good

SCOPE OF WORK:

A 3,500 sq. ft. parking area was constructed in FY 88. No further improvement is needed.

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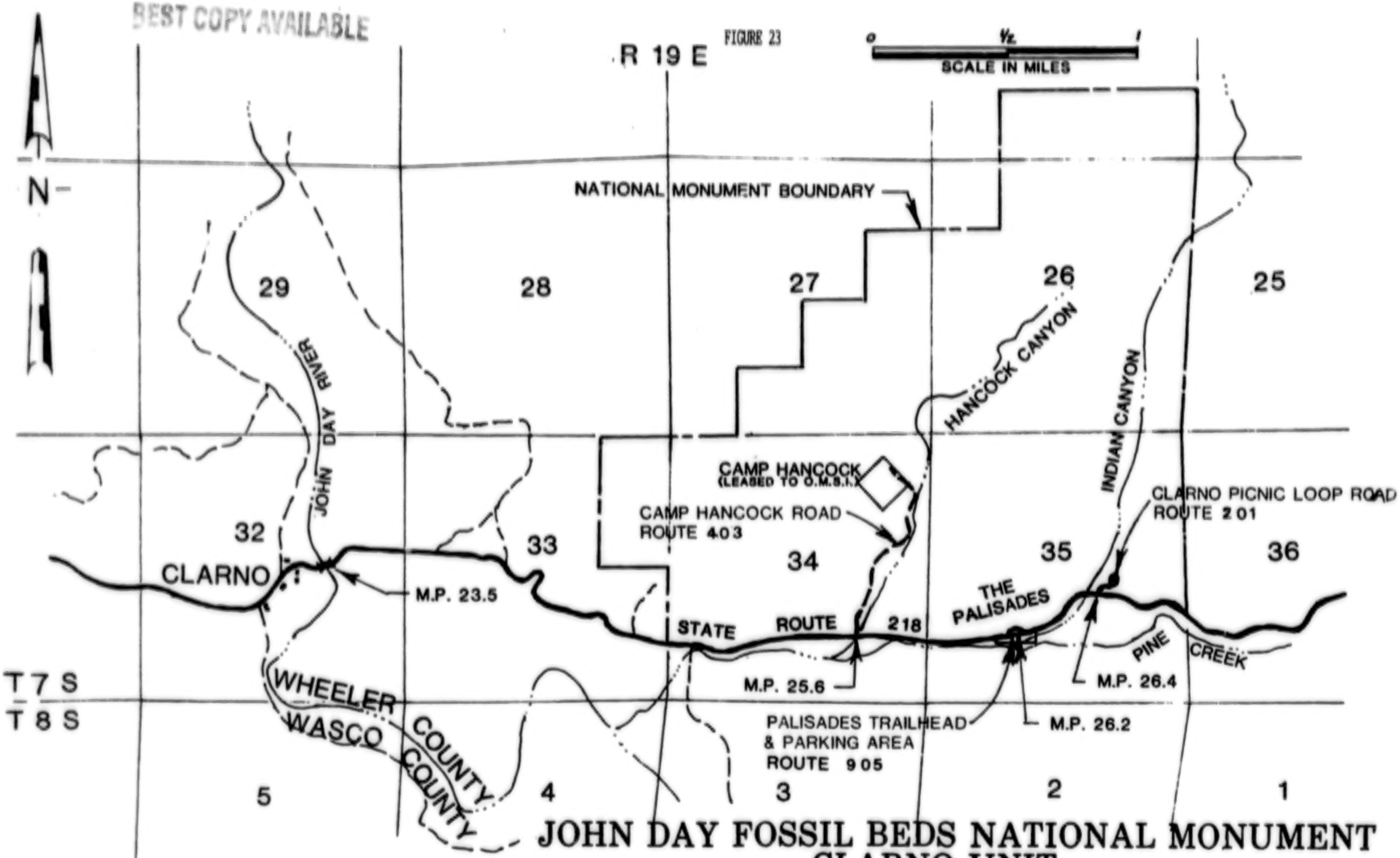
FIGURE 23



JOHN DAY FOSSIL BEDS NATIONAL MONUMENT
CLARNO UNIT

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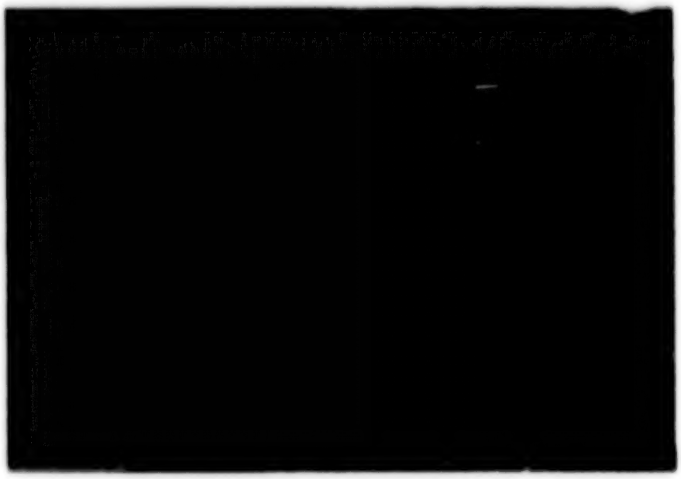
FIGURE 24

CLARNO PICNIC LOOP ROAD

ROUTE 201

ENTRANCE SIGN ALONG SR-218

BEGINING OF ONE-WAY LOOP AND END



REST AREA ALONG BACK OF ONE-WAY LOOP ROAD

ROUTE 905

PALISADES PARKING AREA OFF SR-218 0.2 mi. WEST OF PICNIC AREA ACCESS

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT
ROUTE RECONNAISSANCE REPORT
Date: December 1986

ROUTE INFORMATION:

Park Route No.: 201 Name: Clarno Picnic Loop Road

Total Route Length: 0.18 miles

Route Location:

The entrance to the picnic area loop road intersects SR 218 at MP 26.4.

Purpose/Function:

Provides access to the Clarno picnic area.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Flat along the length of the road, but surrounded by moderately rugged bluffs.

Vegetation:

Sagebrush and juniper trees, and some tall grass thickets.

EVALUATION OF EXISTING ROADWAY:

Length: 0.18 miles Average Daily Traffic (1987): 13 vehicles

Projected Average Daily Traffic (2006): 25 vehicles

Roadway Width (shoulder to shoulder): 20 ft.

Pavement/Surfacing Width (ft): 20 Type: BST

Condition: Poor

Base/Subgrade Cond: Fair Drainage Cond: Poor

Posted Speed Limit N/A Ave. Oper. Speed: 10 mph

Horizontal Alignment: Fair Vertical Alignment: Good

Road Improvement Study (RIP):

1986 Structural CSR: 56.2 Adjusted OSR: 73.5

Roadside Condition: Fair. Some brush is encroaching along the edge of the pavement.

Principal Road Needs:

Resurface the existing BST surface which is beginning to break up, and improve the drainage.

TYPES OF IMPROVEMENTS:

Resurfacing

SCOPE OF WORK:

Repair damaged areas of the existing BST surface and overlay with an asphaltic concrete pavement. Trim brush and improve drainage facilities where necessary.

NEPA COMPLIANCE:

Categorical Exclusion

ALTERNATIVES:

Road Standards

	Two-way	One Way Loop	NPS Standards
Roadway Width (ft):	20	14	20/14 Max.
Lane Width	9	12	9*
Number of Lanes:	2	1	2
Shoulder Width (ft/side):	1	1	1
Design Speed (MPH):	30	15	30

*Adjusted for tour buses and recreational vehicles

ESTIMATE OF COST:

Clearing/Grading	$3,000
Drainage	4,000
Surfacing/Paving*	12,000
Safety & Misc.	1,000
Mobilization 10%	2,000
Construction Subtotal	22,000

Prelim Engr (FHWA)	10%	2,000
Constr Eng (FHWA)	15%	3,000
Contingencies	30%	7,000
Total Estimated Cost:		34,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 1-1/2 inch depth Bituminous Plant Mix Overlay.

Benefits/Results:

An overlay will correct the present problems with the BST surface and protect the initial investment. The visitor will enjoy a newly refurbished facility.

FIGURE 25

CAMP HANCOCK ROAD

ROUTE 403

ENTRANCE FROM SR-218

TYPICAL ROADWAY

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JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: December 1986

ROUTE INFORMATION:

Park Route No.: 403 Name: Camp Hancock Road

Total Route Length: 0.47 miles

Route Location:

The route intersects SR 218 at MP 25.6 and proceeds northerly to the Camp Hancock area.

Purpose/Function:

Provides access to the Camp Hancock facilities The area at the end of the road is owned by the Oregon Museum of Science and Industry (OMSI) and is used during the summer as an overnight outdoor classroom and research center for students of all ages.

Functional Classification:

Class III: Special Purpose Park Road (General public not restricted, but not encouraged to use the road).

Topography:

Flat to rolling.

Vegetation:

Sagebrush and scattered juniper trees.

EVALUATION OF EXISTING ROADWAY:

Length: 0.47 miles; Average Daily Traffic (1987): 8 vehicles

Projected Average Daily Traffic (2006): 15 vehicles

Roadway Width (shoulder to shoulder): 10 - 12 ft.

Pavement/Surfacing Width (ft): 10 - 12 Type: Dirt

Condition: Poor

Base/Subgrade Cond: Poor Drainage Cond: Poor

Posted Speed Limit N/A

Ave. Oper. Speed: 10 mph

Horizontal Alignment: Fair

Vertical Alignment: Fair

Road Improvement Study (RIP):

1986 Structural CSR: 12.5

Adjusted OSR: 55.7

Roadside Condition: Poor

Principal Road Needs:

Drainage improvements and a gravel surface.

TYPES OF IMPROVEMENTS:

Rehabilitation

SCOPE OF WORK:

Regrade the existing road with ditches to control surface drainage. Provide culverts when necessary, and 6 inches of gravel surfacing.

NEPA COMPLIANCE:

Categorical Exclusion

ALTERNATIVES:

Road Standards

	Proposed	NPS Standards
Roadway Width (ft):	12	14 Max.
Lane Width	12	
Number of Lanes:	1	
Shoulder Width (ft/side):	N/A	
Design Speed (MPH):	15	

ESTIMATE OF COST:

Clearing/Grading	$5,000
Drainage	3,000
Surfacing/Paving*	17,000

Mobilization	10%	3,000
Construction Subtotal		28,000
Prelim Engr (FHWA)	10%	3,000
Constr Eng (FHWA)	15%	4,000
Contingencies	30%	8,000
Total Estimated Cost:		43,000

Note: Cost estimates are rounded to nearest $1,000.

*Estimate based upon 6 inch depth gravel surfacing.

Benefits/Results:

Improved access to the site and reduced maintenance costs.

JOHN DAY FOSSIL BEDS NATIONAL MONUMENT

ROUTE RECONNAISSANCE REPORT

Date: August 1988

ROUTE INFORMATION:

Park Route No.: 905 Name: Palisades Parking Area

Total Route Length: N/A

Route Location:

Parking area is adjacent to SR 218 at MP 26.2

Purpose/Function:

Provide access to the Palisades trail.

Functional Classification:

Class III: Special Purpose Park Road

Topography:

Mountainous

Vegetation:

Sagebrush and scattering of juniper trees.

SPECIAL PROBLEMS OR FEATURES:

The spectacular Palisades rock formation is of special interest. The existing pavement is breaking up.

PRINCIPAL ROAD NEEDS:

The road and parking area need resurfacing to reduce maintenance and provide a better facility for the visitor.

TYPE OF IMPROVEMENTS:

Resurfacing

SCOPE OF WORK:

Resurface the area with Asphaltic Concrete.

NEPA COMPLIANCE:

Categorical Exclusion

ESTIMATE OF COST:

Surfacing/Paving*	$5,000
Safety & Misc.	1,000
Mobilization 10%	1,000
Construction Subtotal	7,000
Prelim Engr (FWHA)	1,000
Constr Engr (FHWA)	1,000
Contingencies 30%	1,000
Total Estimated Cost:	10,000

Note: Cost estimates are rounded to nearest $1,000.

* Estimate based upon 3 inch Depth Bituminous Plant Mix Pavement.

Benefits/Results:

Provides river and trail access and scenic views for the public.

APPENDIX

FUNCTIONAL CLASSIFICATION OF PARK ROADS

The National Park Service has a nationwide procedure for classifying roadways within its road system. All park roads are formally classified to assist in planning activities and to describe their purpose and function. Roads are grouped into three categories and subdivided into classes. The following is a schematic diagram illustrating the functional classification of a typical roadway system.

Public Use Park Roads are subdivided into the following four classes:

Class I: Principal Park Road/Rural Parkway. Roads which constitute the main access route, circulatory, tour, or thoroughfare for park visitors.

Class II: Connector Park Road. Roads which provide access within a park to areas of scenic, scientific, recreational, or cultural interest, such as overlooks, campgrounds, etc.

Class III: Special Purpose Park Road. Roads which provide circulation within public use areas, such as campgrounds, picnic areas, visitor center complexes, concessioner facilities, etc. These roads generally serve low-speed traffic and are often designed for one-way circulation.

Class IV: Primitive Park Road. Roads which provide circulation through remote areas and/or access to primitive campgrounds and undeveloped areas. These roads frequently have no minimum design standards, and their use may be limited to specially equipped vehicles.

Administrative Park Roads

The Administrative Park Road category consists of all public and non-public roads intended to be used principally for administrative purposes. It includes roads servicing employee residential areas, maintenance areas, and other administrative developments, as well as restricted patrol roads, truck trails, and similar service roads.

Administrative Park Roads are subdivided into two classes:

Class V: Administrative Access Road. All public roads intended for access to administrative developments or structures such as park offices, employee quarters, or utility areas.

Class VI: Restricted Road. All roads normally closed to the public, including patrol roads, truck trails, and other similar roads. Figure 26 is an example of the application of these functional classifications.

Urban Parkways and City Streets

Urban parkways and city streets are generally dual-use facilities in that they serve both park and non-park related purposes. In addition to providing access to park areas, they also serve as extensions of the local transportation network carrying high volumes of non-park related traffic.

Class VII: Urban Parkway. These facilities serve high volumes of park and non-park related traffic and are restricted, limited-access facilities in an urban area. This category of roads primarily encompasses the major parkways which serve as gateways to our nation's capital. Other park roads or portions thereof, however, may be included in this category.

Class VIII: City Street. City streets are usually extensions of the adjoining street system that are owned and maintained by the National Park Service. The construction and/or reconstruction should conform with accepted engineering practice and local conditions.

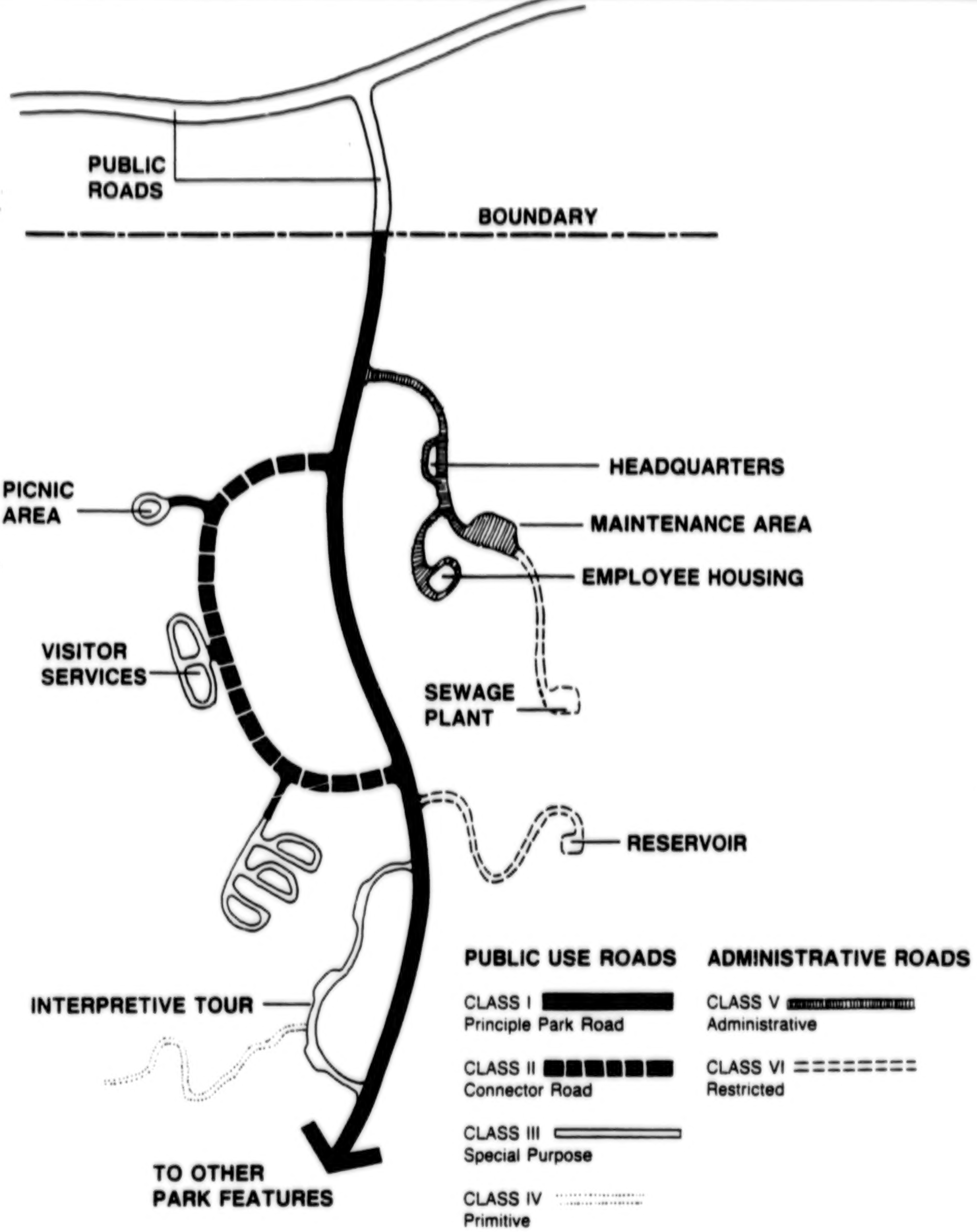

FIGURE 26

SCHEMATIC SHOWING FUNCTIONAL CLASSIFICATION OF PARK ROADS
NATIONAL PARK SERVICE

TYPES OF IMPROVEMENTS

Table 1 summarizes the type of road work needed to achieve the NPS standards for the proposed functional classification, and includes construction cost estimates. The types of work include: Maintenance; Resurfacing, Rehabilitation, and Reconstruction; and New Construction. Each of these is defined as follows:

Maintenance

This type of road work includes the routine maintenance required to repair or preserve the existing road by patching, applying chip-and-seal, gravel blading, ditch cleanup/shaping, striping, and signing. The limited nature of maintenance activities does not significantly improve the road condition, although the road's operation and safety are enhanced and the physical deterioration is usually slowed. This type of activity is normally done by park maintenance staff as part of a cyclic road maintenance program.

Resurfacing

Resurfacing includes minor repairs or correcting localized problems to restore or upgrade the existing suface, with no significant change in width, grade, or other geometric features. Adding additional gravel to a previously graveled road, or applying a bituminous plant mix overlay to a previously paved road are typical examples.

Rehabilitation

Rehabilitation, sometimes called "3R" work (Resurfacing, Restoration, and Rehabilitation), consists of reconditioning an existing roadway to restore riding qualities, improve the structural adequacy, and extend the service life. Minor upgrading of geometric features, such as curve flattening or shoulder widening, may be included. Existing surfacing materials are generally incorporated into the new surface or pavement structure. This type work extends the operational life and provides minor geometric and safety upgrading.

Reconstruction

Reconstruction normally involves a major effort to rebuild an existing highway to the current geometric and safety standards. The work includes activities such as major widening, realignment, and replacement of bridges. Reconstruction generally follows an existing road corridor, but it may deviate significantly in width and alignment from the present road to obtain its full geometric standards.

New Construction

This type of improvement involves substantial or total construction of a new roadway or new alignment, in an unroaded corridor, and includes grading, drainage, and surfacing.

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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